



DELAWARE SOLID WASTE AUTHORITY

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Chief Executive Officer

Richard P. Watson, P.E., BCEE
Chief Operating Officer

February 28, 2011

Mr. Brian Ashby
Program Manager
Solid & Hazardous Waste Management Branch
Department of Natural Resources
And Environmental Control
89 Kings Highway
Dover, DE 19901

Dear Mr. Ashby:

Re: Permit Renewal Application for the Cheswold
Recycling Center (CRC)
Permit No. SW 01/04

Attached are three (3) copies of the completed Permit Renewal Application and Application Checklist for the operations permit renewal for the CRC. Since this application is for an existing bagged waste collection station, portions of the supporting information are based on the original and subsequent applications to construct/operate the facility.

The enclosed cd contains an electronic copy of the application and checklist.

Please contact me with any questions on this application.

Sincerely,

Richard P. Watson, P.E., BCEE
Chief Operating Officer

RPW:blp
Enclosures
CRC\Ops Plan\CRC Permit Renewal Ltr.doc

CC: P.S. Canzano, P.E., BCEE
L.V. Miller, P.E., BCEE
J.M. Munyan, P.E., BCEE
M.R. Lenkiewicz, P.E.

1128 S. Bradford Street, P.O. Box 455, Dover, Delaware 19903-0455
Phone: (302) 739-5361 Fax: (302) 739-4287

CITIZENS' RESPONSE LINE: 1-800-404-7080 www.dswa.com



DELAWARE SOLID WASTE AUTHORITY

Pasquale S. Canzano, P.E., BCEE
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Mr. Brian Ashby
Program Manager
Solid & Hazardous Waste Branch
Department of Natural Resources
and Environmental Control
89 Kings Highway
Dover, Delaware 19901

Dear Mr. Ashby,

RE: Letter of Intent to Renew Permit Application for
the Cheswold Recycling Center (CRC)
Permit No. SW-01/04

This is notification of the Delaware Solid Waste Authority's intention to renew the operations permit for the Cheswold Recycling Center (CRC). The existing permit expires on September 27, 2011. The CRC is a collection station that accepts small quantities of bagged household waste only. No new construction of waste handling facilities is proposed.

Sincerely,

Richard P. Watson, P.E., BCEE
Chief Operating Officer

RPW:blp
CRC\Ops Plan\CRC Letter of Intent

cc: P.S. Canzano, P.E., BCEE
L.V. Miller, P.E., BCEE
J.M. Munyan, P.E., BCEE
M.R. Lenkiewicz, P.E.



CHECKLIST FOR PERSONS APPLYING FOR A PERMIT (OR RENEWAL) TO CONSTRUCT
AND/OR OPERATE A TRANSFER STATION

The attached application will not be processed unless all of the following information is provided by the applicant. The following checklist is based upon the specific requirements contained in the *Delaware Regulations Governing Solid Waste* (DRGSW). Please complete this checklist by placing a check mark in the "Submitted" box for each included document. The applicant will be invoiced the application and public notice fees. The applicant should submit the fees via a check made out to the State of Delaware. The checklist, along with the completed application and the following additional documents, constitutes an application package. A permit will not be issued until all fees and required documentation has been received **The applicant must submit 3 copies of the completed application package as well as an electronic version suitable for distribution and posting on the DNREC website. Submit to:**

Department of Natural Resources and Environmental Control
Solid & Hazardous Waste Management Branch
89 Kings Highway
Dover, DE 19901

Submitted	Description	Reference
2/28/11	Letter of Intent.	DRGSW, Section 4.5.1
✓	Solid Waste Management Facility Application.	DRGSW, Section 4.5.1.1
	Once the application has been deemed complete, the Department will invoice the applicant for remittance of the public notice fee.	7 Del. C., Section 6004
✓	Proof of ownership of the property, or copy of the lease agreement.	DRGSW, Section 4.5.1.2
✓	Plan of Operation.	DRGSW, Section 4.5.1.3
✓	Engineering Report.	DRGSW, Section 4.5.1.4
✓	Hydrogeological assessment if deemed necessary by the Department.	DRGSW, Section 4.5.1.5
✓	An environmental assessment.	DRGSW, Section 4.5.1.6
✓	Topographical and site location maps.	DRGSW, Section 4.5.1.7
✓	Proof that a coastal zone permit (if applicable) has been obtained.	DRGSW, Section 4.5.1.8
✓	Proof that all applicable zoning approvals have been obtained.	DRGSW, Section 4.5.1.8
✓	Proof that all other appropriate federal, state and local environmental permits have been obtained.	DRGSW, Section 4.5.1.8
✓	Conceptual Closure Plan.	DRGSW, Section 4.5.1.9
✓	Proof of financial responsibility for closure.	DRGSW, Section 4.5.1.10
✓	Proof that the facility meets siting criteria.	DRGSW, Section 4.5.1.11
✓	Other reports, data, maps, or information required by the Department.	DRGSW, Section 4.5.1.12

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

*APPLICATION ITEM 12

APPLICANT BACKGROUND INFORMATION (7 Del. C, Chapter 79)

The requirements under this item do not apply to the Cheswold Recycling Center (CRC) since the facility is owned by a body politic, the Delaware Solid Waste Authority, and the facility has been in operation for more than five (5) years. Reference Paragraph 7902(b)(3).



Delaware Department of Natural Resources and Environmental Control
Solid & Hazardous Waste Management Branch

Solid Waste Management Facility Application

Please type or print all information

1. Facility Permit Information: (if applicable)

A. Permit Number: SW01/04

B. Date of Expiration: September 27, 2011

C. Are you requesting any changes to the conditions required by the current solid waste facility permit?
☐ Yes ☒ No (If "Yes", please attach the request and supporting documents.)

2. Facility Information:

Facility Name: Cheswold Recycling Center

Street: County Road 153, near Hughes Crossing

City: Cheswold County: Kent State: DE

Zip: 19936 Phone(s): 302-736-6054 Fax: N/A

Total Site Area (Acres): 11.3 Latitude: N39°12'9.1" Longitude: W75°34'17.4"

3. Owner Information:

Owner's Name: Delaware Solid Waste Authority

Contact Person: Michael Lenkiewicz Title: Facility Engineer

Street Address: P.O. Box 455

City: Dover State: DE Zip: 19903

Phone: 302-284-8851 Fax: 302-284-8136 Email: mrl@dswa.com

4. Operator Information:

Operator's Name: Same as above

Contact Person: _____ Title: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

5. Type of Facility:

☐ Sanitary Landfill

☒ Transfer Station

☐ Thermal Recovery

☐ Industrial Landfill

☐ Materials Recovery Facility

☐ Other

6. Types of Solid Waste to be Accepted (check all that apply):

☒ Municipal

☐ Industrial

☐ Infectious

☐ Other (specify)

7. Service Area (political jurisdictions and unincorporated area to be served by the facility):

All Delaware residents can use this facility

8. Estimated Quantities of Waste Expected to be Handled at the Facility:

A. Average daily tonnage expected during peak season (may be a range): 1.5 tons

B. Maximum daily tonnage expected: 22 tons

C. Average weekly tonnage expected during peak season (may be a range): 3.0 tons

D. Maximum weekly tonnage expected: 44 tons

Note: Maximum daily and weekly tonnages must consider operating hours and days specified in Section 11 of this form. Analysis required by the Environmental Assessment must consider maximum expected tonnages whenever estimates of waste handling activity are needed. The Engineering Report required by the DRGSW must indicate the maximum tonnage which the facility is designed to process (per hour/per day).

9. Disposal Capacity of Proposed Landfill Cells (if applicable):

A. Cell Designation: N/A

B. Cell Acreage: N/A

C. Cell Capacity (years): N/A

D. Cell Capacity (cubic yards): N/A

10. Disposal Capacity Remaining in Existing Landfill (if applicable):

N/A

11. Operating Hours:

A. Daily Operating Hours (include all time periods when waste may be handled): _____

8:00 a.m. - 4:00 p.m.

B. Daily Business Hours (i.e. hours open to the public): _____ 8:30 a.m. - 3:30 p.m.

C. Days of Operation: _____ Monday and Saturday

D. Operating Days Per Year: _____ Approximately 104 days per year

12. Applicant Background Information:

If an Environmental Permit Application Background Statement is required by 7 Del. C., Chapter 79, please complete the Environmental Permit Application Background Statement. ¶17902 (b)(3)

Has an Environmental Permit Application Background Statement been completed and attached?

☐ Yes ☒ No *See attached explanation

Is any information in the Environmental Permit Application Background Statement considered by the applicant to be confidential? ☐ Yes ☐ No

INSTRUCTION: The applicant may claim that some of the information presented in the Environmental Permit Applicant Background Statement is confidential. An applicant wishing to make such a claim should write, preferably in red ink, "claimed confidential information" at each point in the response where such confidentiality is claimed, and provide an explanation of why the release of such information would constitute an invasion of personal privacy or would seriously affect the applicant's business or competitive situation. The confidentiality determination will be subject to the FOIA Regulation, Section 6.

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in the application and all attachments and that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

2/28/11 Richard P. Watson
Date Signature of Applicant or Corporate Agent

Name: Richard P. Watson Phone: 302-739-5361

Title: Chief Operating Officer Email: rpw@dswa.com

Company: Delaware Solid Waste Authority

Address: 1128 S. Bradford Street

Dover, Delaware 19903

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

PROOF OF OWNERSHIP (4.5.1.2)

See attached Deed showing ownership by Delaware Solid Waste Authority.

RECEIVED

APR 17 2011

CSWMMC

04513018

37860

Tax Map. #ED 57.00-01-07

Prepared by: Parkowski, Noble & Guerke
116 W. Water Street
Dover, DE 19901

D E E D

THIS DEED, Made this 25th day of April, in the year of our LORD one thousand nine hundred and ninety-one (1991).

BETWEEN, MORTIMER SEENEY, MASON F. SEENEY, JR. and EVELYN J. SEENEY, his wife, and MARTHA SEENEY, all of R.D.#5, Box 123, Dover, Kent County and State of Delaware, and WALTON H. SEENEY and RUBY SEENEY, his wife, of R.D.#5, Box 123-A, Dover, Kent County and State of Delaware, and MARY ELLEN GONZALEZ and VICTOR M. GONZALEZ, her husband, of P.O. Box 55, Cheswold, Kent County and State of Delaware, and PERRY S. SEENEY of 1280 Saxe Cardinal Apartments, #169, Beaumont, Texas 77705, parties of the first part,

a n d

DELAWARE SOLID WASTE AUTHORITY, a body politic and corporate constituting a public instrumentality of the State of Delaware, of P.O. Box 455, Dover, Kent County and State of Delaware, party of the second part.

WITNESSETH, that the said parties of the first part, for and in consideration of the sum of NINETY THOUSAND (\$90,000.00) DOLLARS, lawful money of the United States of America, the receipt whereof is hereby acknowledged, hereby grant and convey unto the said party of the second part, its successors and assigns,


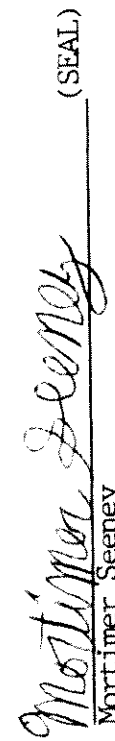

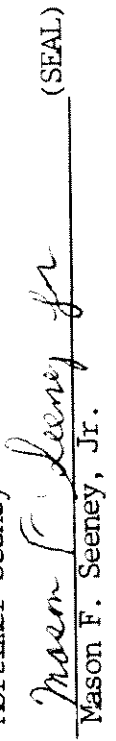










ALL that certain lot, piece or parcel of land situated in East Dover Hundred, Kent County, Delaware, said parcel of land lying on the Southerly side of County Roads #153 and #156 and being as shown on a plan of ELLIOTT SURVEYING dated April 12, 1991, said plan being an integral part hereof, said lot being bounded as follows: on the North by the said Roads #153 and #156, on the East by lands now or late of Chesapeake Utilities Corporation, on the South by Reichold Polymer Co., Inc., and on the West by lands now or late of Mary E. Durham, being more particularly described as follows, to-wit:

BEGINNING at a point in the centerline of County Road #153, a corner for this parcel and lands of the said Chesapeake Utilities, said point being a found nail located South 57 degrees 15 minutes West 191.38 feet from the centerline intersection of County Road #153 and County Road #153-A, said course as measured along the centerline of Road #153; thence from the said point of beginning along line of lands of the said Chesapeake Utilities, South 29 degrees 30 minutes 00 seconds East 1035.38 feet, passing over a found concrete monument at a 25 foot perpendicular offset to Road #153, said course also passing approximately 2.5 feet Westerly of a found stone marker at 525 feet, more or less, to a point in line of lands of the said Reichold, thence with the same, South 57 degrees 15 minutes 00 seconds West 486.75 feet to a point, a corner for lands of the said Durham, thence with the same, North 29 degrees 30 minutes 00 seconds West 1005.33 feet to a point on the Southerly right-of-way line for the said Road #156; thence with the same the following two (2) courses and distances: (1) North 57 degrees 15 minutes East 114.92 feet; thence (2) by the arc of a circle curving to the left (R=618.359 feet) a distance of 193.40 feet to a point in the centerline of Road #153, thence with the same, North 57 degrees 15 minutes East 183.26 feet to a point, the point of beginning. Containing within said metes and bounds 11.3846 acres of land, more or less.

AND BEING the same lands and premises which were conveyed unto John Hughes by deed of Edwin M. Stevenson, Sallie Stevenson, Stephen Slaughter and Annie F. Slaughter, his wife, dated May 29, 1886 and recorded on May 21, 1887 in the Office of the Recorder of Deeds in and for Kent County and State of Delaware, in Deed Book V, Volume 6 at Page 442. AND the said John Hughes departed this life on August 7, 1913, his will being filed in Kent County in Will Book G, Volume 2, Page 284-290, wherein he specifically devised said premises as follows: Item 3--"I give and devise unto my son Perry C. Hughes, his heirs and assigns, all the certain tract of land and premises situated in East Dover Hundred, Kent County, and State of Delaware on the west side of the Delaware Railroad bounded on the East by lands hereinbefore devised unto my grandson, James B. Hughes, on the south by lands of Joseph P. Moore, on the west by lands of Enoch Durham and on the north by the public road leading from Hardisons Corner to Central Church, containing eleven and one-half acres of land more or less, and being the same lands and premises conveyed unto me by deed of Stephen Slaughter and others, dated May 29, 1886 and of record in the Office of the Recorder of Deeds in and for Kent County and State of Delaware, in Deed Book V, Volume 6 at Page 442. AND the said premises was subject to a life estate of Deborah Hughes, his wife, and she departed this life on June 16, 1921. Perry C. Hughes was appointee executor of the Estate of John Hughes on August 23, 1913. AND the said Perry C. Hughes departed this life on July 7, 1955, his will being filed in the Kent County Register of Wills in Will Book K, Volume 3 at Page 96-97, leaving a life estate to Sarah E. Hughes, his wife. The said Sarah Hughes departed this life on June 21, 1957. Pursuant to the will of Perry C. Hughes the aforementioned premises passed to his daughter, Lydia Ann Seeneey. AND the said Lydia Ann Seeneey died intestate on June 27, 1959 leaving a spouse, Mason F. Seeneey, Sr., who subsequently died on May 16, 1968 and said property did descend unto the following children: MORTIMER SEENEY, MASON F. SEENEY, JR., MARTHA SEENEY, WALTON H. SEENEY, MARY ELLEN GONZALES, PERRY S. SEENEY, and LEONA SEENEY. Leona Seeneey died unmarried and without children on February 23, 1963.

IN WITNESS WHEREOF, the said parties of the first part, have hereunto set their hands and seals, the day and year aforesaid.

Sealed and Delivered in the Presence of:


(CITY)

DK-VCL97020

STATE OF DELAWARE *
* SS:
COUNTY OF KENT *

BE IT REMEMBERED, That on this 25th day of April, in the year of our LORD, one thousand nine hundred and ninety-one, personally came before me, the Subscriber, a Notary Public, for the State and County aforesaid, MORTIMER SEENEY, MASON F. SEENEY, JR. and EVELYN J. SEENEY, his wife, MARTHA SEENEY, WALTON H. SEENEY and RUBY SEENEY, his wife, MARY ELLEN GONZALES, A/K/A MARY ELLEN GONZALEZ and VICTOR M. GONZALES, A/K/A VICTOR M. GONZALEZ, her husband, and PERRY S. SEENEY by MARY ELLEN GONZALEZ, as his attorney-in-fact, parties to this Indenture, known to me personally to be such, and they acknowledged this Indenture to be their act and deed.

GIVEN under my Hand and Seal of office, the day and year aforesaid.


Notary Public
Josephine M. Strong
Notary Public for the State of Delaware
Commission Expires: 6/13/92

RECEIVED FOR RECORD

APR 26 A.D. 1991

TIME 4:30 P.M.

Michael T. Sauer

RECORDER

\$4.00 STATE DOCUMENT FEE PAID

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

PLAN OF OPERATION (4.5.1.3.)

The Plan of Operation for the Cheswold Recycling Center (CRC) is divided into two (2) parts:

Part 1 - Attached is the Plan of Operations for the CRC.

Part 2 - Attached is the Operations Plan for the Household Hazardous Waste collection events at the CRC.

PART 1 -
PLAN OF OPERATIONS FOR CRC

CHESWOLD RECYCLING CENTER PLAN OF OPERATIONS

Cheswold, Delaware

DELAWARE SOLID WASTE AUTHORITY

Updated by: Michael R. Lenkiewicz
February 8, 2011

TABLE OF CONTENTS

A. Description of Facility1

B. Operation1

C. Methods for Controlling Noise, Litter, Odors, Etc2

D. Prevention of Unauthorized Waste from Entering the Facility2

E. Contingency Plan for Emergencies

 1. Fire2

 2. Accidents.....2

 3. Spills2

 4. Burglaries3

PLAN OF OPERATION FOR THE CHESWOLD RECYCLING CENTER

A. Description of Facility

The Cheswold Recycling Center (CRC) is located off County Road 153 on an 11.4 acre parcel of land. The CRC began commercial operations on July 1, 1991, which coincided with the closing of the Kenton Collection Station on June 29, 1991. The CRC began operating on that date as a Collection Station for local residents and as Recycle Delaware drop off center. The station only accepts household bagged waste.

The facility uses front end loading boxes to store the waste received. These boxes are fully enclosed. Adjustments to the number of front end boxes will depend upon the amount of waste actually received at the CRC.

B. Operation

Local residents may drive into the facility on an asphalt road, stop at the Recycle Delaware igloo drop off center to deposit their recyclables, then drive to the Collection Station area to park in a spot next to a front end loading container as directed by the DSWA's Attendant. The Attendant will collect the tip fee from the customer (in the form of punching a prepaid ticket) and record the transaction. He will then direct the customer to the appropriate area for unloading the bagged waste. The Attendant is responsible for traffic control and all facility operations.

Routine maintenance such as grass cutting and snow removal will be handled on a contract basis. The front-loading boxes will be maintained by the hauler that owns them. DSWA staff will alert the hauler when the need for repairs becomes apparent. Arrangements for all other maintenance and repairs will be handled by DSWA staff as necessary.

During the operation of the Collection Station, only bagged household waste will be accepted. No waste will remain onsite longer than 72 hours. All waste will be transported off site for proper disposal. The pickup and transportation of the waste will be by a licensed waste hauler.

The business hours for the CRC are Saturday and Monday from 8:30 a.m. to 3:30 p.m.

C. Methods for Controlling Noise, Litter, Odors, Etc.

The use of fully enclosed front end loading boxes and the acceptance of only bagged waste will control litter, odors, insects, rodents, dust, and leachate. Noise from this operation should be minimal. There will be no washwater generated at this facility.

The Collection Station Attendant will provide litter control as customers are unloading their waste.

D. Prevention of Unauthorized Waste From Entering the Facility

During operating hours, the Collection Station Attendant will control the acceptance of waste at the facility. Only bagged household waste will be accepted.

The transfer station area is completely fenced to prevent unauthorized waste from entering the facility when it is not open for operation. In addition, periodic security checks may be made by the State Police during hours when the facility is closed.

E. Contingency Plan for Emergencies

The Contingency Plan for emergencies is as follows:

1. Fire

A fire extinguisher shall be located in the Collection Station Attendant's building. It shall be used for very small fires only. The Attendant will call the Cheswold Fire Department (911) for all fire incidents. He shall also contact the DSWA's Facility Manager.

2. Accidents

The Attendant shall have a first aid kit on site for emergency treatment of minor accidents. He shall contact 911 for all medical emergencies. In addition, he shall also contact the DSWA's Facility Manager.

3. Spills

The Attendant shall have oil spill cleanup equipment for minor spills. He shall contact the DSWA's Facility Manager, and DNREC for any incident that threatens the environment.

4. Burglaries

The Attendant shall have a personal security alarm, which will automatically dial a security service who will contact the police and the DSWA.

PART 2 -
OPERATIONS PLAN FOR THE
HOUSEHOLD HAZARDOUS WASTE
COLLECTION EVENTS

RECEIVED

JAN - 6 2011

CSWMC



Operating and Safety Plan

Household Hazardous Waste Collections

Bridgeport CleanPack
2858 Route 322
Bridgeport, NJ 08014

Clean Harbors Environmental Services, Inc.

OPERATING & SITE SAFETY PLAN

OPERATING SCHEDULE

Clean Harbors shall provide operational services for the statewide HHW collection program 6 times a year on the first Saturday of September, October, November, March, April and May from 8:00 a.m. - 4:00 p.m. Clean Harbors shall be required to accept Household Hazardous Waste (HHW) waste from eligible participants arriving at the site during the designated hours. The operating schedule each month shall be as follows:

September - Papermill Rd., Newark, DE in New Castle County
October -- Cheswold Collection Station (Cheswold) in Kent County
November - Wilmington, DE in New Castle County
March - Wilmington, DE in New Castle County
April -- Pine Tree Corners Transfer Station (PTCTS) in New Castle County
May -- Southern Solid Waste Management Center (SSWMC) in Sussex County

HHW will only be accepted during the operating hours. Waste may be packaged after normal operating hours.

PERSONNEL & EQUIPMENT NEEDS

Curtis Papermill Newark, DE Site

- Staffing: 20 personnel on-site @ 6:30 AM
- Equipment: 2 x Van Trailer / 2 x Box Trucks / 1 x Forklift

Cheswold Collection Station

- Staffing: 10 personnel on-site @ 6:30 AM
- Equipment: 3 x Box Trucks

Wilmington, DE Collection Site

- Staffing: 20 personnel on-site @ 6:30 AM
- Equipment: 2 x Van Trailer / 2 x Box Trucks / 1 x Forklift

Pine Tree Corners Transfer Station

- Staffing: 10 personnel on-site @ 6:30 AM
- Equipment: 3 x Box Trucks

Southern Solid Waste Management Center

- Staffing: 10 personnel on-site @ 6:30 AM
- Equipment: 3 x Box Trucks

WORK PLAN

1. Arrive at collection site on the day of the event with sufficient materials to execute a one-day household hazardous waste collection event, anticipating up to 100 cars per day.
2. The following tasks will be completed during site set-up:
 - a. Lay down plastic under packing area.
 - b. Set up work table and prepare drums for packaging
 - c. Cover sewers and storm drains with plastic and/or block off with absorbent where the potential for a spillage into a sewer or storm drain system exists.
 - d. Set up emergency eye wash unit. Check and test unit. Indicate on site plan.
 - e. Set up fire extinguishers at key locations. Check units. Indicate on site plan.
 - f. Set up emergency spill drum with absorbents and spill PPE. Indicate on site plan.
 - g. Set up traffic patterns to ensure safe and efficient operation.
 - h. Designate break, eating and smoking area and indicate on site plan.
 - i. Identify wash and rest room areas and indicate on site plan.
 - j. Identify routes of evacuation and post-evacuation meeting points with Emergency Coordinators
 - k. Conduct a "tool box" safety meeting reviewing the items in the site safety plan.
3. Conduct survey of the participants (identify generator status).
4. Unload waste from the participants' vehicles.
5. Segregate and properly package (labpack, bulk, loosepack, or palletize) waste for disposal.
6. Prepare shipping documents for all waste to be transported off site at the end of the day.
7. Load and transport waste by licensed waste transporters.
8. Return the collection site to its original condition prior to the collection event.

Clean Harbors Environmental Services, Inc.

ACCEPTABLE WASTE MATERIALS

A general summary of how each waste stream will be managed including packaging and treatment/disposal method is presented in the table below. Alternate disposal methods may be utilized.

Waste Type	Packing Method	Treatment Method
Antifreeze	Consolidate	Recycle or Treatment
Bulk Oil Based Paint	Bulk / Labpack	Incinerate
Bulk Flammable Liquids	Consolidate	Fuels Blend
Vehicle Batteries	Bulk/Loosepack	Recycle
Mercury	Labpack	Recycle
Home Health Care Waste	Labpack	Incineration
Cylinders	Bulk/Loosepack	Incineration
Explosives	N/A	N/A
Flammable Solid	Labpack	Incineration
Radioactive Material (Smoke Detectors)	N/A	N/A
Spontaneously Combustible	Labpack	Incineration
Combustible Liquids	Bulk / Labpack	Incineration
Flammable Liquid	Labpack	Incineration
Water Reactive - DWW	Labpack	Incineration
Oxidizer	Labpack	Incineration
Organic Peroxide	Labpack	Incineration
Toxics	Labpack	Incineration
Corrosive Materials	Labpack	Incineration or Treatment
Other Regulated Materials	Labpack	Incineration
Dioxins	Labpack	Incineration

Note: Smoke Detectors will be managed by DSWA.

Household batteries will be directed to Delaware's recycling program.

Clean Harbors Environmental Services, Inc.

UNACCEPTABLE WASTE MATERIALS

Clean Harbors will not accept the following materials during the collection event because of regulatory and/or treatment and disposal facility limitations.

1. Latex Paint (as directed by the AUTHORITY)
2. Asbestos (as directed by the AUTHORITY)
3. Radioactive wastes (other than Smoke Detectors).
4. Explosives. (Clean Harbors does have the capability to manage certain explosive materials. Most will be handled by the State Police)
5. Unknown materials in containers larger than 1 gallon or 8 pounds.
6. Substances regulated by the Drug Enforcement Agency.
7. Unstable wastes.
8. Unknown gas cylinders.

If the above listed unacceptable wastes are unintentionally received, the contract will have material remain on site until safe transport and/or disposal can be made. This may include the contact of the State Police for explosives, contact of the DEA for listed DEA substances, or the contact of internal high-haz experts in the employment of the contractor.

Clean Harbors will take a sample of all unknowns that cannot be identified on site for laboratory analysis. Results of the analysis are necessary before it can be determined how to manage the waste.

The following efforts will be made to reduce the number of non-acceptable and unknown materials that are collected.

1. Public notices for the collection event instruct participants not to bring any non-acceptable materials to the events.
2. When the participant arrives at the site, DSWA and/or Clean Harbors personnel (at the entrance station) will ask for a general description of the wastes brought to the collection event to screen out possible non-acceptable materials.
3. Clean Harbors will look for non-acceptable materials at the unloading stations. If an unknown is found, Clean Harbors will ask the participant what the material is or was used for. If any material cannot be accepted, Clean Harbors will inform the participant as well as an AUTHORITY representative.

HAZARDOUS WASTE SEGREGATION, LABPACKING & BULKING PROCEDURES

All waste will be segregated according to hazard class/compatibility groups. The major compatibility groups are as follows: Flammables, poisons, corrosive, and oxidizers. Clean Harbors personnel will utilize appropriate personal protective equipment. Once the waste is segregated, it will be packaged according to the methods listed on page 2, (Acceptable Materials). Applicable DOT and EPA regulations along with the disposal plant guidelines will determine material quantities and drum types.

Materials may be labpacked or loose packed into drums with vermiculite absorbent. Large quantity compatible bulk liquids will be poured together into drums. These drums will be properly grounded. When bulking, Clean Harbors personnel shall wear the appropriate Personal Protection Equipment (PPE) such as, but not limited to, full-face respirator, Tyvek aprons or suits, gloves, etc. All materials will be shipped in approved DOT containers. Any container in poor condition will be overpacked into a larger drum.

Clean Harbors Environmental Services, Inc.

PROCEDURES FOR UNKNOWN

Unknown materials will be segregated at the collection site. Quantities of unknowns less than 1 gallon or 8 pounds will be characterized by the following parameters before being packaged for shipment. Those substances that cannot be classified on site will be sampled and analyzed at an off site lab.

- | | |
|--------------------------|----------------------|
| (1) Flammability | (4) Organic Peroxide |
| (2) Oxidation Properties | (5) Reactivity |
| (3) Corrosivity | |

TRANSPORTATION

All waste shall be manifested to conform to EPA and DOT requirements. Data from the manifests shall be used to generate the project summary reports.

Waste transporters licensed in the State of Delaware shall transport all waste.

RECORD KEEPING

Clean Harbors shall maintain records of its activities in providing Collection Services. Records shall be kept separately for each location.

Clean Harbors shall accurately count and record the number of participants.

REPORTING REQUIREMENTS

Following each event, Clean Harbors shall supply Operation Services, Inventory, and Inspection Reports. The reports shall include at a minimum:

- accurate amounts of HHW waste collected at each site,
- breakdown of types and quantities of HHW waste,
- number of participants utilizing each site,
- description of any unusual wastes,
- description of any problems or spills encountered at the sites,
- copies of any certificates of disposal from that month,
- summary of all contacts by Clean Harbors with the media,
- summary of total project costs, including collection and disposal,

Clean Harbors Environmental Services, Inc.

Spill Reporting Requirements

DNREC shall be notified immediately (1-800-662-8802) of any spill outside the containment area or any spill that exceeds one gallon (or ten pounds) and involves HHW. Written notification shall be submitted to the DNREC Solid Waste Management Branch no later than the next business day following any event. The notification report will include at least the following information:

- a. Date and time of occurrence.
- b. Date and time of discovery.
- c. Date and time of reporting.
- d. Agencies notified.
- e. Materials and quantities involved.
- f. Materials and quantities released to the environment and quantities recovered.
- g. Narrative describing how the incident occurred and the actions taken by Clean Harbors and/or other response personnel.
- h. Report of injuries or damage.
- i. Remedial actions undertaken and proposed, follow-up required, and proposed schedule.
- j. A narrative describing the potential impact to the surrounding area.
- k. A copy of the Incident Report Form.

Materials Required for Collection Event

(for one day event, expecting up to 100 cars)

Bring supply trucks properly loaded with all necessary materials and supplies:

- | | |
|---|---|
| <input type="checkbox"/> Eye Wash | <input type="checkbox"/> Drum Dolly |
| <input type="checkbox"/> Spill Kit | <input type="checkbox"/> DOT Diamonds |
| <input type="checkbox"/> Fire Extinguishers | <input type="checkbox"/> Waste Labels |
| <input type="checkbox"/> PPE | <input type="checkbox"/> Shipping Documents |
| <input type="checkbox"/> Waste Containers | <input type="checkbox"/> Pallet Jack |
| <input type="checkbox"/> Absorbents | |
| <input type="checkbox"/> Plastic Sheeting | |

Required Personal Protection Equipment

Site Set-up/Breakdown - Personnel setting up and breaking down the HHW collection site will be dressed in Level D personal protection, which will include:

- Work uniform;
- Steel-toed safety boots;
- Safety glasses with sideshields;
- Leather, or Puncture resistant gloves (if no chemical contamination) or PVC.

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Off-Loading/Segregating/Packing - Personnel off-loading vehicles, segregating, and packing materials will be in modified Level "D" personal protection to include:

- Tyvek disposable white coveralls or apron w/sleeves;
- Steel toed safety boots;
- Puncture resistant gloves with nitrile inner;
- Safety glasses w/sideshields or chemical splash goggles;

An increased level of respiratory protection and PPE may be warranted in specific situations. Leaking containers, spills or other instances where potential exposure may occur may require upgrading with the guidance of the Site Supervisor.

Pour-Off - Because of the handling of open containers, pour-off personnel shall don Level C personal protection. Minimum PPE for pour-off operations includes:

- Full-face air purifying respirator with GMC-H or GME-H cartridges
- Poly-Tyvek suit or CPFI apron with sleeves;
- Nitrile gloves - inner;
- PVC or Nitrile - outer
- Chicken boots or rubber overboots;
- Steel toe safety boots;

Personnel opening containers - preparing them to be poured off (in an area adjacent to the Pour Off) will wear safety glasses with a face shield in addition to the above listed PPE. Under no circumstances will this person be allowed to pour off any containers they open unless they have on a full face respirator.

In addition, all the gloves will be securely taped to further reduce the possibility of skin contact. Outer boots also will be taped in cases where a full suit is used.

LIMITATIONS OF PERSONAL PROTECTION EQUIPMENT

Tyveks: Disposable Tyvek coveralls are not chemical resistant. Tyvek will slow down but not prevent chemicals from going through. If hazardous material is spilled or splashed on Tyvek, remove and put on new one.

Respirators: Air purifying respirators do not supply air, in fact they restrict airflow to the lungs. Air purifying respirators are not intended for fire fighting situations, working in confined spaces, or where there may be an oxygen deficiency.

Make sure the appropriate cartridges and filters are used. Read manufacturer's specifications on boxes or cartridges to determine proper selection of cartridges and filters and frequency of change.

Do not use air-purifying respirators for protection from chemicals without adequate warning properties including, but not limited to, sulfides, carbon monoxide, and isocyanates.

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Gloves: No glove is resistant to all chemicals. Gloves purchased by Clean Harbors are resistant to a wide range of chemicals, but not all chemicals. If gloves are torn, punctured or show signs of deterioration, remove and put on new pair.

POTENTIAL HAZARDS

(This site safety plan is intended to serve as a quick reference for use in the field. For more information, see Project Manager or Health and Safety Manager for additional chemical and toxicological information available on common household chemical products.)

In general, "Primary Hazards" are potential immediate hazards, both toxicological and chemical. "Secondary Hazards" are potential chronic effects of these products. Secondary hazards list the potential routes of entry in parenthesis. The codes for the routes of entry are as follows: (D) for dermal; (I) for inhalation; and (O) or oral. (Note. CNS means central nervous system, which includes brain, spinal cord and all nerves.)

Household Product	Typical Constituents	Potential Primary Hazards	Potential Secondary Hazards
Automotive Products			
Antifreeze	ethylene glycol, water, heavy metals	Poisonous	Damage to liver, kidneys (I)
Batteries	sulfuric acid, lead	Corrosive, Poisonous, Electrical; Flammable, Explosive (from release of H ₂ gas)	Skin sensitivity (D); Damage to CNS, liver, kidneys, Teratogenic (I)
Body fillers	polyester resin with MEK or benzoyl peroxide hardeners	Flammable, Organic peroxide	Skin sensitivity (D); Damage to CNS, respiratory system (I)
Brake fluids	glycol ethers	None	Dermatitis (D); Damage to liver, CNS (I)
Flares	sodium chlorate	Flammable, Explosive	None
Metal etchers	phosphoric acid	Corrosive	Skin sensitivity (D)
Paints	aromatic solvents (toluene, xylene), isocyanates (TDI, HMDI)	Flammable	Dermatitis (D); Damage to liver, CNS, Carcinogenic (I)
Power steering fluids	petroleum hydrocarbons	Combustible	Dermatitis (D); Damage to liver, CNS (I)
Transmission fluids	petroleum hydrocarbons	Combustible	Dermatitis (D); Damage to liver, CNS (I)

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Used oil	petroleum hydrocarbons, heavy metals	Combustible, Flammable, Toxic	Dermatitis (D); Damage to liver, kidneys, CNS (I)
Windshield cleaners	methanol, ammonia	Poisonous, Flammable, Corrosive	Skin sensitivity (D); Damage to liver, CNS (I)
<i>Household Products</i>			
Bathroom cleaners	ammonium compounds; sodium hypochlorite; sodium bisulfate	Corrosive, Oxidizer	Skin sensitivity (D); Damage to respiratory system (I)
Bleach	sodium hypochlorite, sodium silicates, hydrogen peroxide	Corrosive, Oxidizer	Skin sensitivity (D); Damage to respiratory system (I)
Brass/chrome cleaners	ammonia, petroleum distillates	Combustible, Irritant	Skin sensitivity (D)
Disinfectants	phenols, ammonium compounds, fragrances	Poisonous, Corrosive, Flammable	Skin sensitivity (D); Damage to liver, CNS (I)
Drain cleaners	sodium hydroxide, sodium nitrate, sodium nitrite, sodium hypochlorite; sulfuric acid, sodium bisulfate	Corrosive, Oxidizer	Skin sensitivity (D); Damage to respiratory system (I)
Floor waxes cleaners, polishes	ethylene glycols, nitrobenzenes	None	Dermatitis (D); Damage to liver (I)
Oven cleaners	sodium hydroxide	Corrosive	Skin sensitivity (D); Damage to respiratory system (I)
Pesticides, herbicides	varies including heavy metals, some with petroleum solvents	Poisonous, Flammable, Combustible	Damage to CNS, kidneys, liver, Teratogenic, Carcinogenic (D,I)
Pool chemicals	hydrochloric (muriatic) acid; sodium hypochlorite, calcium hypochlorite, sodium dichloro-s-triazine trione	Corrosive, Oxidizer	Skin sensitivity (D); Damage to respiratory system (I)
Rug cleaners	sodium silicates, sodium hydroxide	Corrosive	Skin sensitivity (D); Damage to respiratory system (I)
Wood preservatives	zinc naphthanate, copper naphthanate, creosote, 2,4,5-T, arsenic, petroleum solvents	Combustible, Poisonous, Flammable	Dermatitis (D); Damage to CNS, Teratogenic, Carcinogenic (D,I)
<i>Home Improvement Products</i>			
Adhesives	polyamine compounds, polyester resins, polyvinyl resins	Irritant, Combustible, Flammable	Dermatitis (D); Damage to CNS (I)

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Aerosol paints	paint resin, propellants	Flammable, Explosive	Damage to CNS (I)
Glass etchers	hydrofluoric acid	Corrosive, Poisonous	Skin sensitivity (D); Tissue destruction
Latex paint	glycols, heavy metals including mercury	None	Damage to CNS, liver, kidneys, teratogenic (I)
Metal cleaners/ strippers	phosphoric acid; hydrochloric (muriatic) acid; hydrofluoric acid	Corrosive	Skin sensitivity, Tissue destruction (D)
Navel jelly	phosphoric acid	Corrosive	Skin sensitivity (D)
Oil base paint	mineral spirits, aromatic solvents, heavy metals including lead	Combustible, Flammable	Damage to CNS, liver, kidneys, teratogenic, carcinogenic (I)
Roof coatings	tar resin, aromatic solvents	Combustible	Dermatitis (D); Damage to liver, CNS (I)
Stains	mineral spirits, mercuric oleate	Combustible, Flammable	Dermatitis (D); Damage to CNS, liver, kidneys (I)
Strippers	methanol, methylene chloride	Irritant, Combustible	Dermatitis (D); Damage to CNS, Carcinogenic (I)
Thinners	aromatic solvents	Flammable, Combustible	Dermatitis (D); Damage to liver, CNS (I)
Turpentine	turpentine	Flammable, Combustible	Dermatitis (D); Damage to liver, CNS (I)
Wood dough	ketones, polymer resins	None	Damage to liver, CNS (I)

SAFE PRACTICES FOR A VARIETY OF CONDITIONS *Note: Unsafe practices are not allowed.*

Condition: Burns

Safe Practices:

1. Always wear personal protection equipment when working with hazardous materials.
2. When working with chemicals, always use gloves resistant to those chemicals.
3. Remove damaged personal protection equipment immediately.
4. Short pants are not allowed, even when worn underneath Tyvek.
5. Make sure the emergency eye wash unit is working properly and nearby (within 100 feet and 10 seconds of access).
6. Avoid working in the sun for excessively long periods of time.
7. Do not toss objects, they may contain a corrosive material.

Condition: Electrical hazards

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Safe Practices:

1. Make sure extension cords and devices are rated for outdoor use.
2. Make sure extension cords and devices are in good condition.
3. Keep extension cords and devices from coming into contact with water and other liquids.
4. Keep work areas dry. Clean up spills immediately.

Condition: Eye injury

Safe Practices:

1. Safety glasses are required at all times.
2. Contact lenses are never allowed when working with hazardous materials or in a dusty environment.
3. Do not toss objects.
4. Make sure emergency eye wash unit works properly.
5. Wear a full face respirator when additional eye protection is required

Condition: Fires

Safe Practices:

1. Smoking is only allowed in designated area away from the hazardous materials workstations.
2. Ask any participant that is smoking to extinguish his/her smoke when on site.
3. Clean up spills of hazardous materials such as flammable or combustible solvents immediately before they go unnoticed and reach a source of ignition, such as the tail pipe of a vehicle.
4. Do not toss objects, they may contain flammable, combustible or shock sensitive material.
5. Make sure there are working fire extinguishers nearby.

Condition: Forklift hazard

Safe Practices:

1. Wearing seat belt.
2. Use hardhat when necessary.
3. Operate forklift at safe speed.
4. Check around for people and equipment before operating forklift.
5. Do not hang around area where forklift is being operated if you are not suppose to, operator may not expect you to be there.
6. Whenever possible, operate forklift with forks down.
7. Make sure forklift is in good working condition.
8. Make sure forklift reverse warning alarm works. Use a spotter when necessary.
9. Make sure load capacity of forklift is not exceeded.
10. Use pallet or drum grabber when transporting drums with forklift.
11. Forklifts are not designed to carry any passengers.

Condition: Foot injury

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Safe Practices:

1. Always wear steel toe shoes.
2. Never move a bulk drum or heavy equipment without steel toe shoes on.
3. Keep away from vehicles until they have come to complete stop.

Condition: Hand injury

Safe Practices:

1. When working with chemicals, use gloves that are resistant to those chemicals.
2. When physical protection is needed, use leather work gloves. If chemical protection is necessary, wear nitrile/latex gloves underneath work gloves.
3. Replace gloves that are torn, rip or otherwise damaged immediately.
4. Be careful when unloading vehicles as there may be sharp objects in the trunk.
5. Be careful when going through a box of materials as there may be sharp objects in the box such as broken glass and nails.
6. Be careful when closing tailgates, hatches, trunks and doors of vehicles.
7. Do not toss objects.
8. When using tools such as knives and screwdrivers, always point the tool away from yourself and others.

Condition: Head injury

Safe Practices:

1. Do not toss objects.
2. Use hardhat when necessary.

Condition: Heat stress

Safe Practices:

1. Work under canopy or shade. Rotate with other Clean Harbors personnel if necessary.
2. Take breaks to replenish lost fluids. Avoid beverages and food with high sugar content.

Condition: Inhalation hazard

Safe Practices:

1. Do not sniff or taste contents of product containers.
2. Use dust mask or respirator with particulate cartridges when working in an excessively dusty environment.
3. When breaking down wastes such as oxidizers, make sure full face respirator is used with the proper cartridges (usually combination organic and acid gas HEPA cartridges).
4. Take breaks to get fresh air.

Condition: Poisoning (Note: May occur through several routes of exposure including inhalation, digestion, injection and/or dermal.)

Clean Harbors Environmental Services, Inc.

Safe Practices:

1. Do not sniff or taste contents of product containers.
2. Always work with personal protection equipment, including chemical resistant gloves.
3. Replace gloves if they have been torn, punctured or otherwise damaged.
4. Always wash before eating, drinking, smoking or using rest rooms.
5. Only drink water from outlets clearly intended for consumption.
6. Expel any sputum that is brought up, do not swallow.

Condition: Slips and trips

Safe Practices:

1. Tape down loose plastic.
2. Tape down extension cords.
3. Wipe up spills immediately.
4. Pick up loose objects on the ground immediately.
5. Keep aisles clear.

Condition: Spills

Safe Practices:

1. Do not toss objects.
2. Use cart when unloading vehicles. Be careful of boxes with bad bottoms.
3. Do not overload cart, especially the upper level.
4. Do not grab containers by caps or tops.
5. Let lab packing or paint personnel know if container is leaking. Take care of leakers as soon as possible.

Condition: Strains from heavy lifting

Safe Practices:

1. Avoid lifting heavy objects.
2. you.
2. Do not hang around receiving area when you are not working there.
3. Correct When lifting, exercise proper lifting techniques (i.e. do not bend or twist back, bend knees, good posture, use stomach muscles).
3. Ask for assistance from Clean Harbors or DSWA personnel.
4. When moving bulk drums, use drum dolly.
5. When loading and unloading heavy objects from truck, use tailgate lift.

Condition: Strains from reaching

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Safe Practices:

1. Ask sorters to place items closer to you.
2. Go around table and move items closer to your work area.
3. Go around other side of vehicle to get closer to materials instead of reaching.
4. Get up and walk over.

Condition: Traffic hazards

Safe Practices:

1. Wait for vehicles to stop before approaching to unload. Watch drivers and establish eye contact to make sure they see traffic cones, barriers and signs that are out of alignment immediately.
4. Pay attention to vehicle's reverse lights. Make sure vehicle is in park with parking brake set before unloading vehicle.

Clean Harbors Environmental Services, Inc.

Emergency Contacts

Clean Harbors Environmental Services, Inc.

PO Box 337

2858 Route 322

Bridgeport, NJ 08014

(856) 467-3103 (856) 467-7445 - fax

Name	Title	Office Number	Cell or Pager Number
David DiMeo	Technical Services General Manager	973-643-6025	609-610-4960 (Cell)
Sean Stanton	Regional H&S Manager	781-380-7136	781-853-9105 (Cell)
Dave Dutton	Apollo Project Manager	215-652-7443	302-293-0363 (Cell)
Vince Mroz	Operations Manager	856-467-7443	302-293-0367 (Cell)

Delaware Solid Waste Authority

1128 South Bradford Street

P.O. Box 455

Dover, DE 19903-0455

(302) 739-5361 (302) 739-5505 - fax

Name	Title	Office Number	Home Number
Rich Von Stetten	Manager of Recycling	302-739-5361	302-677-1683 302-363-0424 cell
Mike Vespa	DRC Recycling Supervisor	302-739-1099	302-363-0485 cell
Jim Vescovi	SSWMC Facility Manager	302-875-3448	302-226-1046 302-542-8276 cell
Skip Miller	CSWMC & Pine Tree Corner Facility Manger	302-284-8851	302-736-1911 302-242-2439 cell

General Emergency Numbers

Service	Emergency Number	Non-Emergency Number
Any Emergency	911	N/A
Department of Natural Resources	800-662-8802	302-739-5072
U.S. EPA Region III	215-814-5000	215-814-5000
Poison Control Center	302-655-3389	N/A
CHEMTREC	800-424-9300	800-424-9300

Clean Harbors Environmental Services, Inc.

Northern New Castle County Non-Emergency Numbers

Service	Company	Number
Police	New Castle County Police Dept. - Dispatch	302-573-2800
Hospital	Christiana Hospital	302-733-1601
	Wilmington Hospital	302-428-4181

Pine Tree Corners Non-Emergency Numbers

Service	Company	Number
Police	Delaware State Police	302-378-5218
Hospital	Christiana Hospital	302-733-1601
	Wilmington Hospital	302-428-4181

Cheswold Non-Emergency Numbers

Service	Company	Number
Police	Delaware State Police	302-739-4863
Hospital	Kent General Hospital	302-674-4700
	Christiana Hospital	302-733-1601
	Wilmington Hospital	302-428-4181

SSWMC Non-Emergency Numbers

Service	Company	Number
Police	Delaware State Police	302-855-2980
Hospital	Nanticoke Memorial Hospital	302-629-6611
	Beebe Medical Center	302-645-3291

Clean Harbors Environmental Services, Inc.

Emergency Procedures

General:

All personnel involved in a DSWA collection event should be familiar with this Operating and Site Safety Plan before working at a collection event. Prior to any collection event, a safety meeting will take place to discuss operating and site safety plans. Personnel should work as a team to monitor work practices and physical health. No smoking is permitted near the site. All work decisions should be made with safety as the primary focus.

Spills:

The following procedures should be followed in the event of a spill:

- 1.) If the spill has or threatens to cause environmental damage, call DNREC emergency response team at 1-800-662-8802.
- 2.) Put on appropriate personal protection equipment such as, but not necessarily or limited to, safety glasses, chemical resistant Tyvek coveralls, chemical resistant gloves, safety shoes, and respiratory protection equipment. Depending on the chemical, one may need to upgrade the level of protection beyond Level C to Level B (i.e., don SCBA).
- 3.) Contain liquid spill with absorbent appropriate for the chemical spilled.
- 4.) Keep spill from getting into storm drain or sewer system. (Storm drains and sewers will be covered with plastic and blocked with absorbent prior to each event.)
- 5.) Clean up spill immediately before someone may walk or drive over it.
- 6.) Always maintain a clear path of escape. Do not walk over or onto spilled material.
- 7.) For spills of solid materials, carefully sweep up with a broom and shovel into drum liner from upwind direction. Be careful not to create a dust problem or create sparks for potentially ignitable materials.
- 8.) For spills of liquid materials, absorb spill with absorbent from upwind direction. Be careful not to splash liquid when applying absorbent. Do not toss absorbent into spill, rather apply with broom and shovel to avoid splashing. Apply absorbent first around the outside edge of the spill, and then fill in towards center with broom or shovel.
- 9.) Place spill clean up waste into appropriate drum for disposal.
- 10.) If the situation requires additional emergency response, call 9-1-1 to report the incident, and then notify Clean Harbors and DSWA emergency contacts.

Clean Harbors Environmental Services, Inc.

Fires & Explosions:

Each facility is equipped with a fire extinguisher in the event a small contained fire occurs. Each hazardous materials storage facility is also equipped with a dry chemical fire suppression system, which will automatically activate in the event of a fire. If the system fails to automatically operate, the system can be manually activated.

In the event of a large facility fire or explosion:

- 1.) Evacuate the area. (Follow evacuation procedures).
- 2.) Call 9-1-1, and then notify the Clean Harbors and DSWA emergency contacts.
(See Contingency Plan).

Tips for fighting fires:

- 1.) Evaluate the safety risk before attempting to fight the fire.
- 2.) Contain small fire with dry chemical fire extinguishers. Call 9-1-1 for large fires or explosions.
- 3.) Never fight a fire in a confined space.
- 4.) Never fight a fire where there is a risk of oxygen deficiency.
- 5.) Never fight a fire where there is a risk of explosion.
- 6.) Always approach fire from upwind.
- 7.) Approach and fight fire crouched low in case there's a flare up.
- 8.) Shoot retardant at base of fire. Follow directions on fire extinguisher.
- 9.) Always maintain a clear escape path.
- 10.) Never turn your back on a fire.

Evacuation Procedures:

The following procedures should be followed when an evacuation is required:

- 1.) Stop incoming traffic. Ask all participants to turn off their engines, set their parking brakes and leave vehicle. Assist participants to safety.
- 2.) Stop what you are doing. Do not take time to retrieve personal property.
- 3.) Follow pre-defined evacuation routes. If pre-defined route is obstructed, follow alternate route.
- 4.) Assemble at pre-defined meeting point for head count.

Illnesses and Injuries

Bleeding:

- 1.) Stop bleeding by applying pressure to wound with clean hand or towel.
- 2.) Do not apply tourniquet.
- 3.) If bleeding will not stop, call 9-1-1, and then notify Clean Harbors and DSWA emergency contacts.

Clean Harbors Environmental Services, Inc.

Breathing Difficulties:

- 1.) If individual is conscious, remove from area and get fresh air.
- 2.) If individual stopped breathing, call 9-1-1, administer CPR, and then notify Clean Harbors and DSWA emergency contacts.

Burns:

- 1.) Apply wet towels to burned area. Do not let towels dry or they may stick to skin or tissue.
- 2.) When applying wet towels to face, make sure nose and mouth are not covered or victim may suffocate.
- 3.) Do not apply ice packs to badly burned victim, it may cause tissue cell destruction and shock.
- 4.) For chemical burns, determine what the chemical was.
- 5.) For serious second degree burns and third degree burns, call 9-1-1, then notify Clean Harbors and DSWA emergency contacts.
- 6.) If victim goes into shock, keep him warm and make sure air ways are not blocked.

Eye Injury:

- 1.) Flush eye(s) with copious amounts of water for at least 15 minutes.
- 2.) Do not try to remove foreign object embedded in eye. Keep wet patch over eye.
- 3.) If medical attention is required, call 9-1-1, and then notify Clean Harbors and DSWA emergency contacts.

Head Injury:

- 1.) If individual is unconscious, call 9-1-1, then notify Clean Harbors and DSWA emergency contacts.
- 2.) Seek medical attention.

Ingestion:

- 1.) Determine source of poisoning.
- 2.) Call Poison Control Center (302-655-3389).
- 3.) Unless instructed to do so by Poison Control Center or physician, do not induce vomiting.
- 4.) Call 9-1-1, and then notify Clean Harbors and DSWA emergency contacts.
- 5.) Seek medical attention.

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Inhalation:

- 1.) Remove from area and get fresh air.
- 2.) Administer artificial respiration if necessary.
- 3.) Determine what individual was exposed to.
- 4.) Seek medical attention.

Skin Exposure:

- 1.) Remove contaminated Tyvek coveralls and clothing.
- 2.) Wash affected area with copious amounts of water.
- 3.) Seek medical attention if necessary.

Strains and Sprains:

- 1.) Avoid physically demanding work. Call it a day if necessary.
- 2.) Seek medical attention if necessary.

Unconsciousness:

- 1.) Do not move individual unless he is in immediate danger where he is.
- 2.) Call 9-1-1, and then notify Clean Harbors and DSWA emergency contacts.
- 3.) Administer artificial respiration if individual stopped breathing.

Other Illnesses and Injuries:

- 1.) For minor injuries, apply general first aid.
- 2.) Do not administer any form of medication unless instructed to do so by a physician.
- 3.) Call 9-1-1 if individual is unconscious, bleeding uncontrollably, not breathing, in shock, or suffered third degree burns, then notify Clean Harbors and DSWA emergency contacts.
- 4.) Apply artificial respiration if individual is not breathing.
- 5.) If individual is in shock, unconscious, or received an injury to the spinal cord (neck and back), do not move him unless he is in immediate danger where he is. Call 9-1-1, and then notify Clean Harbors and DSWA emergency contacts.
- 6.) Keep individual warm and make sure airways are not blocked.

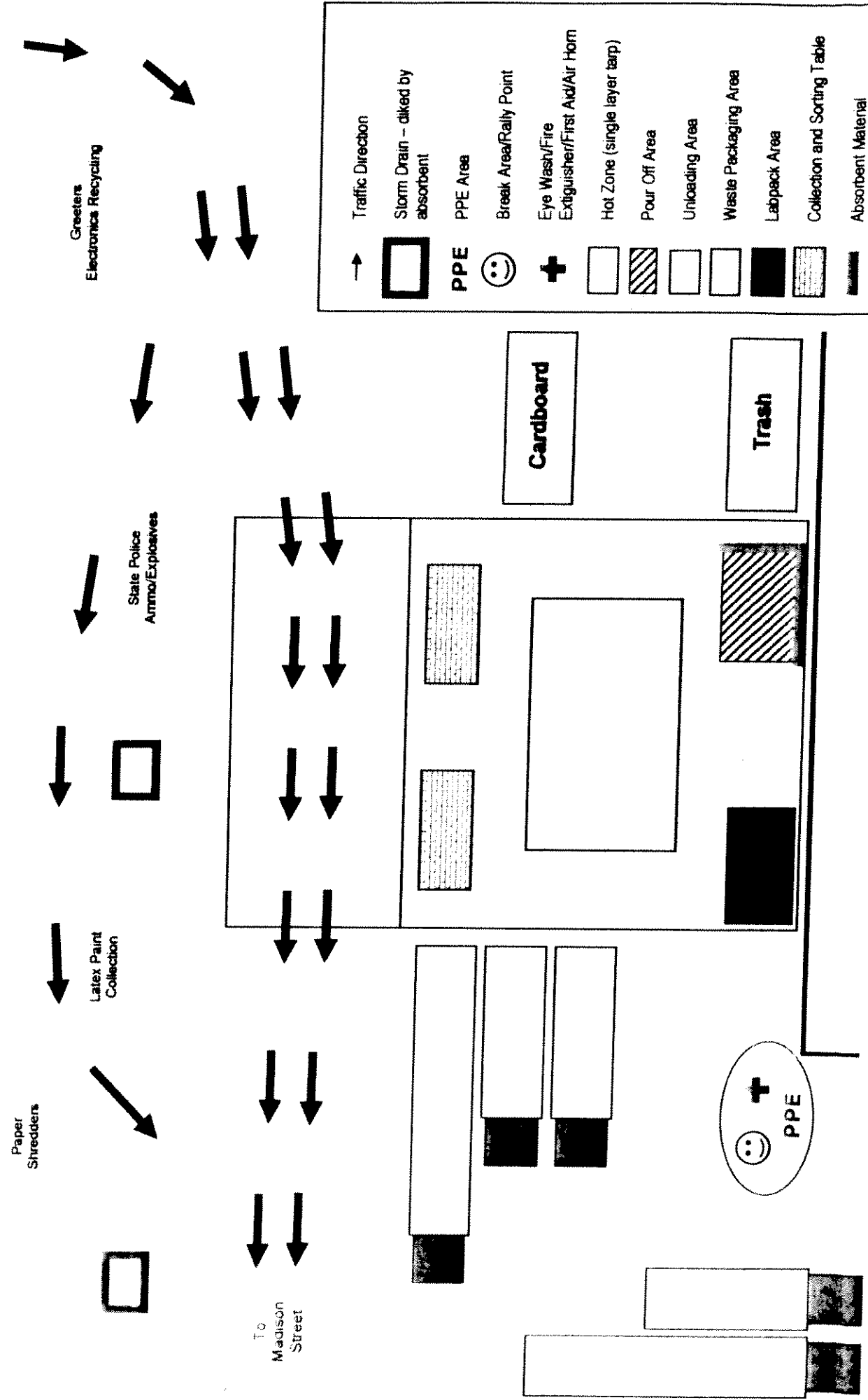
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Accident/Incident Reporting

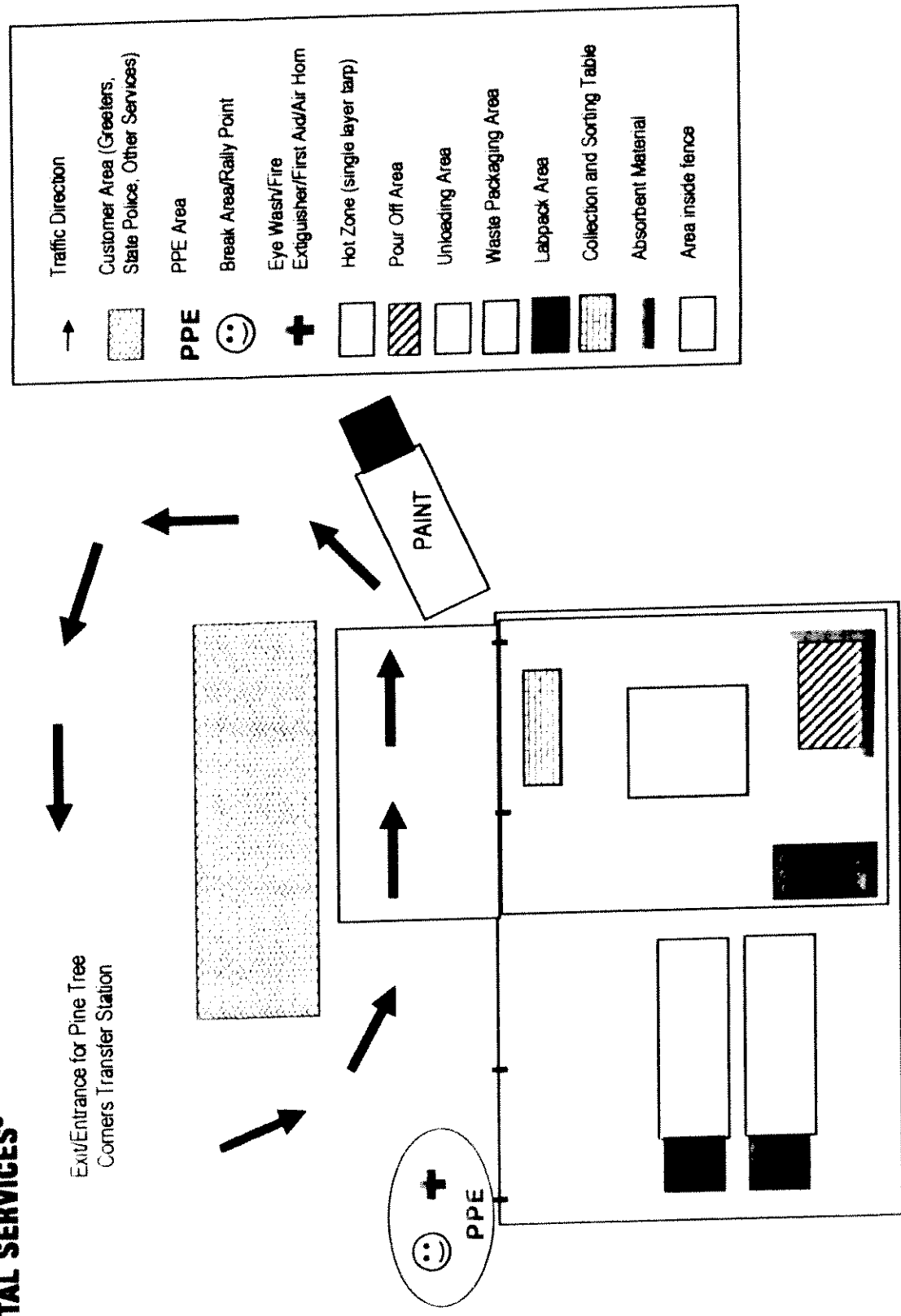
Fill out an incident report for every incident described above and for every "near-miss" or close call that could have resulted in an accident. Immediately, the incident should be reported to the Clean Harbors site manager, then notify the Clean Harbors and DSWA emergency contacts of the incident within 24 hours. The Regional Health and Safety Manager and/or Office Manager will assist in filling out the other appropriate forms (e.g., medical claim forms). Seek medical attention at the nearest occupational health care clinic for non-serious injuries. For serious and potentially serious injuries, call 9-1-1 and allow the emergency personnel to select the appropriate medical facility, and then notify Clean Harbors and DSWA emergency contacts.

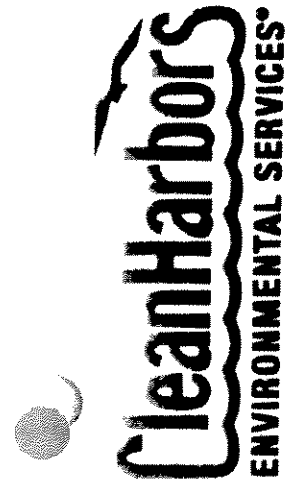
Site Supervisor

This plan was developed for on-site Clean Harbors and DSWA employees. All on-site Clean Harbors and DSWA personnel identified in this site safety plan are required to review the plan. Additional copies of this plan along with additional chemical and toxicological information on common household chemical products are available at the collection event. The Clean Harbors site supervisor who certifies this plan below is responsible for implementing the plan on site.



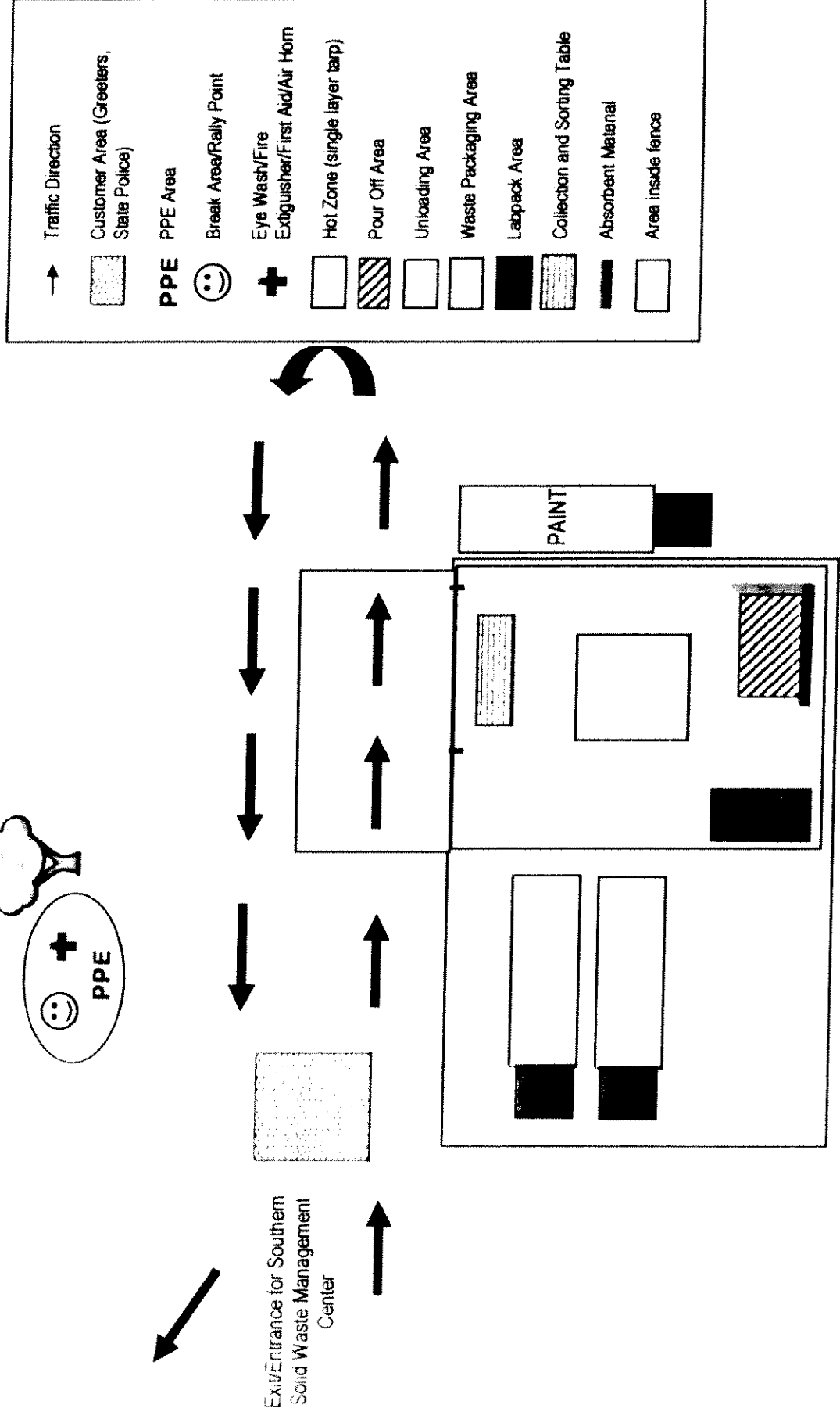
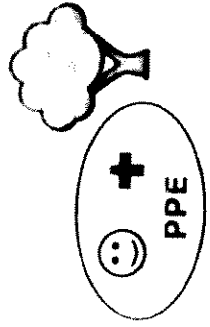
HHW Site Diagram

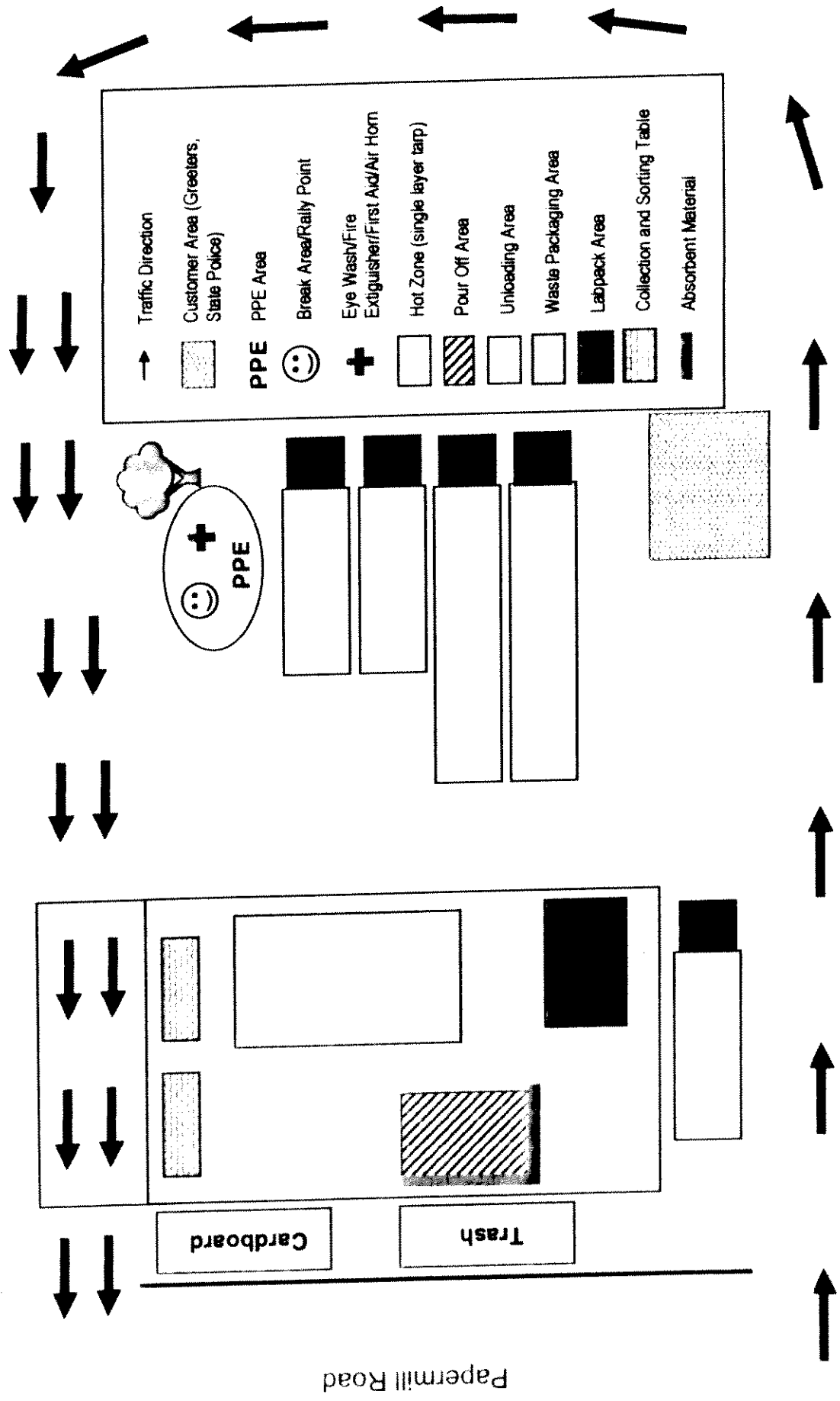


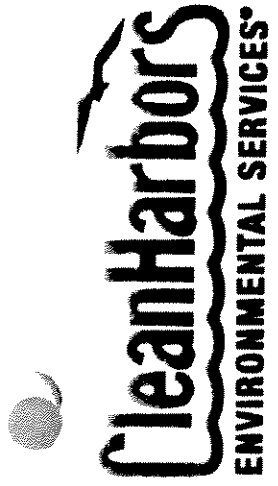


DSWA – Georgetown, DE

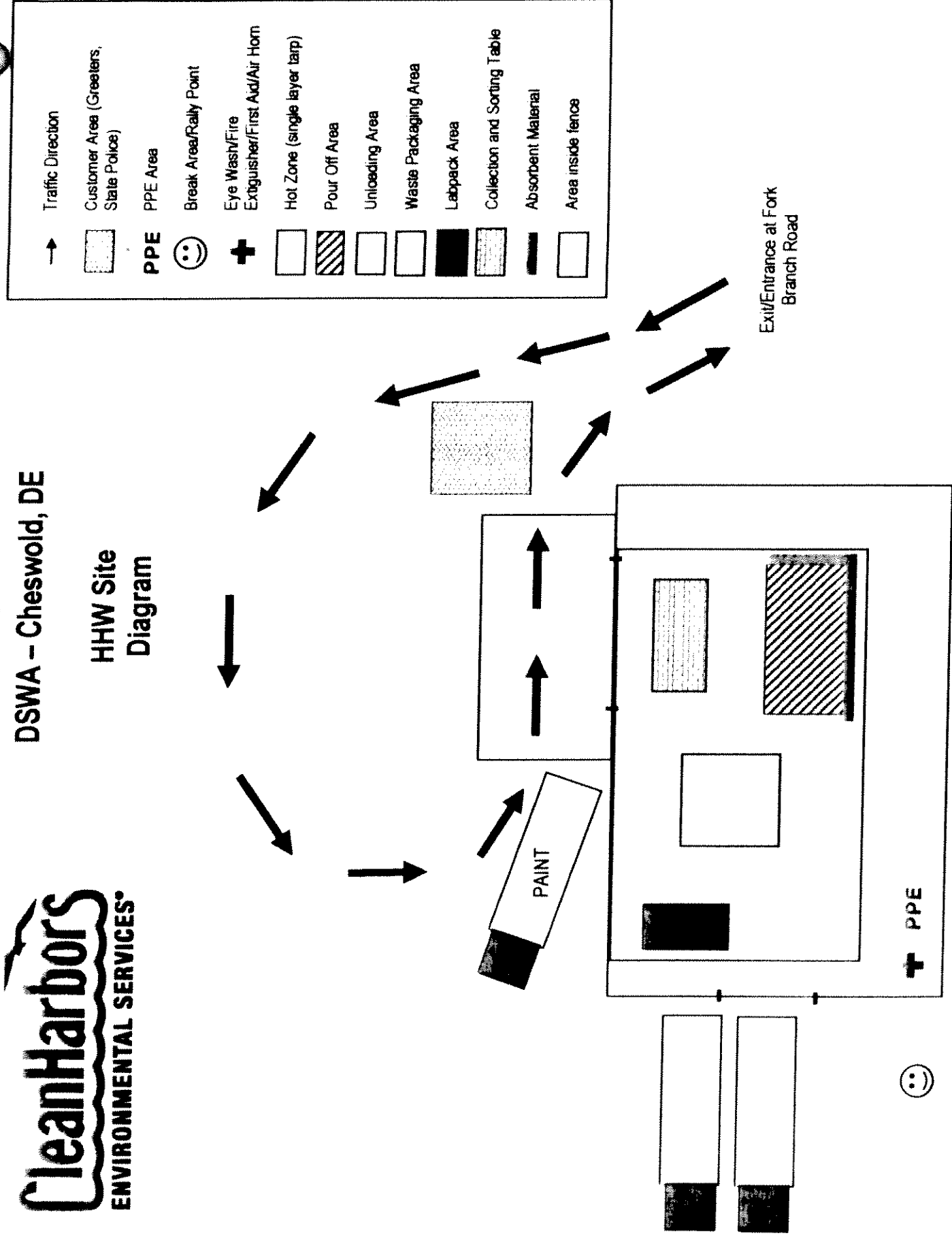
HHW Site
Diagram







DSWA – Cheswold, DE
HHW Site
Diagram



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR & WASTE MANAGEMENT
80 KING HIGHWAY
DOVER, DELAWARE 19901



SOLID & HAZARDOUS WASTE
MANAGEMENT BRANCH

TELEPHONE: (302) 739-9403
FAX NO.: (302) 739-5060

DELAWARE HAZARDOUS WASTE TRANSPORTER PERMIT (AMENDED)
PERMIT NUMBER DE-HW-0330

Effective Date: July 1, 2009
Date of Expiration: June 30, 2014

EPA Identification Number: MAD039322250

Permittee: Clean Harbors Environmental Services Inc.
42 Longwater Drive
Norwell, MA 02061

This permit, issued pursuant to the provisions of 7 Del. C. Chapters 60 and 63, shall remain in effect for the term stated above provided the permittee is familiar with, and complies with, all terms and conditions herein.

Terms and Conditions:


1. As specified in the application for this permit, the following wastes may be transported by the permittee: Part 261 characteristic or listed hazardous wastes; used or waste oils (as defined by Part 279, Used Oil Management Standards); spent antifreeze exhibiting a characteristic of hazardous waste; PCB contaminated hazardous waste; spent fluorescent lighting tubes and ballasts when managed as a non-universal waste.
2. A copy of this permit must be carried in each transport vehicle and presented upon request to any law enforcement officer or representative of the Delaware Department of Natural Resources and Environmental Control (DNREC).
3. Permits issued for a period greater than one year: Permittees holding permits issued for a term greater than one year will be invoiced for the permit renewal fee annually during the term of said permit. The permit shall remain in effect until the expiration date identified above, provided the permittee submits the permit renewal fee within the time frame stated on the invoice.
4. Only those vehicles identified in the application for this permit may be used to transport the wastes identified in Condition 1. All vehicles shall be operated in accordance with *Delaware Regulations Governing Hazardous Waste*, Section 263.105. Permittee shall also be responsible for all company vehicles operating under this permit.
5. Wastes identified in Condition 1 of this permit may not be transported to facilities that are not permitted or specifically approved by the receiving state to receive and manage those wastes.
6. The permittee's name shall be prominently displayed on both sides of the vehicle (motorized and containerized units) in figures at least 3 inches high, and of a color that contrasts with the color of the vehicle.
7. The permittee's permit number shall be prominently displayed on both sides and the rear of the vehicle (motorized and containerized units) in figures at least 3 inches high, and of a color that contrasts with the color of the vehicle.

Delaware's good nature depends on you!

Delaware Waste Transporter Permit DE-HW-0330

Page Two of Two

8. **Safety and Emergency Equipment:** All vehicles shall carry the safety and emergency equipment contained in the application for this permit in addition to any equipment required by DOT 49 CFR Motor Carrier Safety Regulations.
9. **Spill Containment Equipment:** All vehicles shall carry spill containment equipment appropriate for the type of waste being transported. All vehicles shall carry a copy of the Spill Control Plan.
10. All vehicles shall be equipped and operated so as to prevent any release of waste material to the environment.
11. All personnel shall be properly trained prior to handling or transporting wastes for which this permit is issued.
12. Permittee shall at all times be in compliance with applicable insurance requirements for motor carriers as prescribed by the *Delaware Regulations Governing Hazardous Waste*, Section 263.103(b)(3) and the Federal DOT 49 CFR Part 387.
13. Permittee must notify the Solid and Hazardous Waste Management Branch in writing of any additions or changes in waste types to be transported, ownership information, TSD facilities, and/or changes in operations, procedures or equipment within ten (10) working days after putting those changes into effect.
14. This permit does not relieve the permittee of complying with any other applicable Federal, State or local regulations or ordinances.
15. In the event that regulations governing the activity authorized herein are revised, this permit may be reopened and modified. Permittee shall be notified in writing and provided an opportunity for a public hearing. At that time, additional limitations, requirements, and/or special conditions may be included in the permit.
16. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
17. Permittee shall immediately contact the Department in the event of a release of any waste material while in transport in or through Delaware. The 24 hr. numbers to call are 800.662.8802, 302.739.9401 or 911.
18. Any violation of the conditions of this permit, regulations promulgated by the Department of Natural Resources and Environmental Control, Secretary's Orders, or provisions of 7 Del. C., Chapters 60 or 63 will be grounds for suspension or revocation of this permit.
19. Special conditions: None.


Karen G. J'Anthony
Environmental Program Manager I
Solid and Hazardous Waste Management Branch

JUNE 29, 2009
Date

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR & WASTE MANAGEMENT
89 KINGS HIGHWAY
DOVER, DELAWARE 19901



SOLID & HAZARDOUS WASTE
MANAGEMENT BRANCH

TELEPHONE: (302) 739-9403
FAX NO.: (302) 739-5060

DELAWARE SOLID WASTE TRANSPORTER PERMIT

Permit Number: DE-SW-0330
Effective Date: June 30, 2006
Expiration Date: June 30, 2011

Renewal Application
Due Date: April 01, 2011

Permittee: Clean Harbors Environmental Services, Inc.
Street Address: 42 Longwater Drive
Norwell, MA 02061

Mailing Address: P.O. Box 9149
Norwell, MA 02061

This permit, issued pursuant to the provisions of 7 Del. C. Chapter 60, shall remain in effect for the term stated above, provided the permittee is familiar with, and complies with, all terms and conditions herein.

Terms and Conditions:

1. This permit authorizes the permittee to transport in, out of, or through the State of Delaware the following waste types (as defined in the *Delaware Regulations Governing Solid Waste*):

Municipal Solid Waste.

Special Waste - Non-Hazardous Industrial Waste.

Dry Waste.

Special Waste - Ash.

Infectious Waste.

Special Waste - Asbestos.

Special Waste - Non-Hazardous Petroleum-Hydrocarbon Contaminated Soils.

2. The permittee shall not transport the wastes identified in Condition 1 to facilities that are not authorized to receive, treat, store, transport, dispose, or recover said wastes.
3. Permits issued for a period greater than one year: Permittees holding multi-year permits will be invoiced for the permit renewal fee annually during the term of the permit. The permit shall remain in effect until the expiration date identified above, provided the permittee submits the permit renewal fee within the time frame stated on the received invoice.
4. A copy of this permit must be carried in each transport vehicle and presented upon request to any law enforcement officer or representative of the Delaware Department of Natural Resources and Environmental Control (DNREC).

Delaware's good nature depends on you!

Delaware Solid Waste Transporter Permit DE-SW-0330

Page 2 of 3

5. Only those vehicles identified in the application for this permit shall be used to transport the wastes identified in Condition 1. All vehicles shall be operated in accordance with the *Delaware Regulations Governing Solid Waste* (DRGSW), Section 7: Transporters.
6. The permittee's name shall be prominently displayed on both sides of the vehicle (motorized and containerized units) in figures at least 3 inches high and of a color that contrasts with the color of the vehicle.
7. The permittee's permit number shall be prominently displayed on both sides and the rear of the vehicle (motorized and containerized units) in figures at least 3 inches high and of a color that contrasts with the color of the vehicle.
8. **Safety and Emergency Equipment:** All vehicles shall carry the safety and emergency equipment contained in the application for this permit in addition to any equipment required by DOT 49 CFR Motor Carrier Safety Regulations.
9. **Spill Containment Equipment:** All vehicles shall carry spill containment equipment appropriate for the type of waste being transported. All vehicles shall carry a copy of the Spill Control Plan.
10. Each vehicle engaged in the transportation of solid waste must be fully enclosed or covered to prevent the discharge or release of solid waste to the environment.
11. All personnel shall be properly trained prior to handling or transporting wastes for which this permit is being issued.
12. Permittee shall maintain insurance in compliance with requirements described in the DRGSW, Section 7: Transporters.
13. **Permit amendments:**
 - (a) Permittee must notify DNREC in writing of any additions of waste types, waste destinations, or changes in operations or procedures at least ten working days before putting those changes into effect. If a permit amendment is required, written approval from DNREC must be obtained prior to putting those changes into effect. Changes requiring a permit amendment include (but are not limited to) additions of waste types, additions of waste destinations, and changes in company name or address.
 - (b) Permittee must notify DNREC in writing of any changes in equipment (vehicle additions/deletions) at least five working days prior to putting those changes into effect.
14. This permit does not relieve the permittee of complying with any other applicable Federal, State or local regulations or ordinances, including, but not limited to, vehicle load restrictions pursuant to 21 Del. C. Chapter 45. Failure to comply may be grounds for suspension or revocation of this permit.
15. In the event that regulations governing the activity authorized in this permit are revised, this permit may be reopened and modified, after notice and opportunity for a public hearing. At that time, additional limitations, requirements, and/or special conditions may be included in the permit.

Delaware Solid Waste Transporter Permit DE-SW-0330
Page 3 of 3

16. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
17. Permittee shall immediately contact the Department in the event of a release of any waste material while in transport in or through Delaware. The 24 hr. numbers to call are 1-(800)-662-8802 or (302)-739-9401 or 911.
18. Any violation of the conditions of this permit, regulations promulgated by the Department of Natural Resources and Environmental Control, Secretary's Orders, or provisions of 7 Del. C., Chapter 60 will be grounds for suspension or revocation of this permit.
19. Environmental Violations: Permittee is responsible for reporting all proposed and final notices of violation, criminal citations, tickets, arrests, convictions, civil or administrative penalties proposed or assessed whether against the company, its owners or operators, corporate officers, company employees including but not limited to drivers, subcontractors or agents operating under the authority of this permit involving any environmental statute, regulation, permit, license, approval or order. Such report shall be made to the Department within 15 days of the date issuance regardless of the state in which it occurred.
20. Special conditions:
 - A. Business License: Permittee shall, upon obtaining and servicing customers in the State of Delaware, obtain a Delaware Business License from the State Division of Revenue as required by 30 Del. C., Chapter 21. The Division of Revenue may be contacted at (302) 577-5800. Upon receipt of this license, the permittee shall submit a copy of the license to the Department of Natural Resources and Environmental Control, Solid Waste Management Branch. This requirement applies to all transporters.

Karen G. J'Anthony
Karen G. J'Anthony
Environmental Program Manager I
Solid and Hazardous Waste Management Branch

29 JUNE 2006
Date

ENDORSEMENT FOR
MOTOR CARRIER POLICIES OF INSURANCE FOR PUBLIC LIABILITY
UNDER SECTIONS 29 AND 30 OF THE MOTOR CARRIER ACT OF 1980

Form Approved
OMB No. 2125-0074

Issued to Clean Harbors Environmental Services, Inc. of Norwell, MA

Dated at Boston, MA this 28th day of October

Amending Policy No. BAP6681231-03 Effective Date 11/1/2009

Name of Insurance Company Zurich American Insurance Company

Telephone Number (617) 570-8800

Countersigned by *[Signature]*
Authorized Company Representative

- The policy to which this endorsement is attached provides primary or excess insurance, as indicated by ☒ for the limits shown:
- ☒ This insurance is primary and the company shall not be liable for amounts in excess of \$5,000,000 for each accident.
- ☐ This insurance is excess and the company shall not be liable for amounts in excess of \$ for each accident.

Whenever required by the Federal Highway Administration (FHWA) or the Interstate Commerce Commission (ICC), the company agrees to furnish the FHWA or the ICC a duplicate of said policy and all its endorsements. The company also agrees, upon telephone request by an authorized representative of the FHWA or the ICC, to verify that the policy is in force as of a particular date.

Cancellation of this endorsement may be effected by the company or the insured by giving (1) thirty-five (35) days notice in writing to the other party (said 35 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof of notice), and (2) if the insured is subject to the ICC's jurisdiction, by providing thirty (30) days notice to the ICC (said 30 days notice to commence from the date the notice is received by the ICC at its office in Washington, D.C.).

DEFINITIONS AS USED IN THIS ENDORSEMENT

ACCIDENT includes continuous or repeated exposure to conditions which results in bodily injury, property damage, or environmental damage which the insured neither expected nor intended.

MOTOR VEHICLE means a land vehicle, machine, truck, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used on a highway for transporting property, or any combination thereof.

BODILY INJURY means injury to the body, sickness, or disease to any person, including death resulting from any of these.

ENVIRONMENTAL RESTORATION means restitution for the

The insurance policy to which this endorsement is attached provides automobile liability insurance and is amended to assure compliance by the insured, within the limits stated herein, as a motor carrier of property, with Sections 29 and 30 of the Motor Carrier Act of 1980 and the rules and regulations of the Federal Highway Administration (FHWA) and the Interstate Commerce Commission (ICC).

In consideration of the premium stated in the policy to which this endorsement is attached, the insurer (the company) agrees to pay, within the limits of liability described herein, any final judgment recovered against the insured for public liability resulting from negligence in the operation, maintenance or use of motor vehicles subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 regardless of whether or not each motor vehicle is specifically described in the policy and whether or not such negligence occurs on any route or in any territory authorized to be served by the insured or elsewhere. Such insurance as is afforded, for public liability, does not apply to injury to or death of the insured's employees while engaged in the course of their employment, or property transported by the insured, designated as cargo. It is understood and agreed that no condition, provision, stipulation, or limitation contained in the policy, this endorsement, or any other

loss, damage, or destruction of natural resources arising out of the accidental discharge, dispersal, release or escape into or upon the land, atmosphere, watercourse, or body of water, of any commodity transported by a motor carrier. This shall include the cost of removal and the cost of necessary measures taken to minimize or mitigate damage to human health, the natural environment, fish, shellfish, and wildlife.

PROPERTY DAMAGE means damage to or loss of use of tangible property.

PUBLIC LIABILITY means liability for bodily injury, property damage, and environmental restoration.

endorsement thereon, or violation thereof, shall relieve the company from liability or from the payment of any final judgment, within the limits of liability herein described, irrespective of the financial condition, insolvency or bankruptcy of the insured. However, all terms, conditions and limitations in the policy to which the endorsement is attached shall remain in full force and effect as binding between the insured and the company. The insured agrees to reimburse the company for any payment made by the company on account of any accident, claim, or suit involving a breach of the terms of the policy, and for any payment that the company would not have been obligated to make under the provisions of the policy except for the agreement contained in this endorsement.

It is further understood and agreed that, upon failure of the company to pay any final judgment recovered against the insured as provided herein, the judgment creditor may maintain an action in any court of competent jurisdiction against the company to compel such payment.

The limits of the company's liability for the amounts prescribed in this endorsement apply separately, to each accident, and any payment under the policy because of any one accident shall not operate to reduce the liability of the company for the payment of final judgments resulting from any other accident.

The Motor Carrier Act of 1980 requires limits of financial responsibility according to the type of carriage and commodity transported by the motor carrier. It is the MOTOR CARRIER'S obligation to obtain the required limits of financial responsibility.

THE SCHEDULE OF LIMITS SHOWN ON THE NEXT PAGE DOES NOT PROVIDE COVERAGE.
The limits shown in the schedule are for information purposes only.

Form MCS-90

(Over)

UNIFORM INFORMATION SERVICES, INC. MC 1622k (10-99)

SCHEDULE OF LIMITS
Public Liability

Type of Carriage	Commodity Transported	Minimum Insurance
(1) For-hire (In interstate or foreign commerce).	Property (nonhazardous).	\$ 750,000
(2) For-hire and Private (In interstate, foreign, or intrastate commerce).	Hazardous substances, as defined in 49 CFR 171.8, transported in cargo tanks, portable tanks, or hopper-type vehicles with capacities in excess of 3,500 water gallons; or in bulk Divisions 1.1, 1.2, and 1.3 materials; any quantity of Division 2.3 Hazard Zone A or Division 6.1, Packing Group 1, Hazard Zone A material; in bulk Division 2.1 or 2.2; or highway route controlled quantities of a Class 7 material as defined in 49 CFR 173.403.	5,000,000
(3) For-hire and Private (In interstate or foreign commerce: in any quantity) or (In intrastate commerce: in bulk only).	Oil listed in 49 CFR 172.101, hazardous materials and hazardous substances defined in 49 CFR 171.8 and listed in 49 CFR 172.101, but not mentioned in (2) above or (4) below.	1,000,000
(4) For-hire and Private (In interstate or foreign commerce).	Any quantity of Division 1.1, 1.2 or 1.3 material; any quantity of a Division 2.3, Hazard Zone A, or Division 6.1, Packing Group 1, Hazard Zone A material; or highway route controlled quantities of Class 7 material as defined in 49 CFR 173.403.	5,000,000

Note: The type of carriage listed under (1), (2), and (3) applies to vehicles with a gross vehicle weight rating of 10,000 pounds or more. The type of carriage listed under number (4) applies to all vehicles with a gross vehicle weight rating of less than 10,000 pounds.

SCHEDULE OF LIMITS
Public Liability

For-hire motor carriers of passengers operating in interstate or foreign commerce

Vehicle Seating Capacity	Minimum Insurance
(1) Any vehicle with a seating capacity of 16 passengers or more.	\$ 5,000,000
(2) Any vehicle with a seating capacity of 15 passengers or less.	1,500,000

Clean Harbors Environmental Services, Inc. (2007 – 2010)

This document summarizes the environmental compliance history of Clean Harbors Environmental Services, Inc. (Corporate Offices, Transportation Operations, Field Service Operations, Laboratory Operations and Maine Oil Facility Operations). Information is also provided on prior compliance or enforcement matters involving companies that were acquired by Clean Harbors. Clean Harbors makes no representation as to the completeness or accuracy of the information on compliance or enforcement matters involving prior owners or operators of the facilities. No information is supplied concerning proceedings under the Comprehensive Environmental Response, Compensation and Liability Act or comparable state statutes or routine vehicle roadside inspections.

The Company is licensed to transport hazardous wastes in thirty-eight states and two Canadian provinces and operates a network of over thirty service center offices.

California

Year

- 2008 (1) Case Number FF23058 issued to Clean Harbors Environmental Services, Inc. for improper packaging of hazardous materials. The matter was settled with a no contest plea to a misdemeanor complaint and a payment of \$3050.00 on April 24, 2008.
- (2) Case Number FF23534 issued to Clean Harbors Environmental Services, Inc. for a vehicle overweight infraction. The matter was settled with a no contest plea to a vehicle infraction and the payment of \$1845.00 on April 24, 2008.

Illinois

Year

- 2007 (1) Intent to Assess Civil Monetary Penalty File Number CP 0780125 (CLM) alleging Clean Harbors accepted a shipment of hazardous waste that failed to comply with the terms of a DOT special Permit. The oversight resulted in segregation, placarding and shipping paper violation. Immediate corrective actions were taken and a civil penalty of \$2500.00 was paid.

Louisiana

Year

- 2008 (1) The State of Louisiana Department of Public Safety and Corrections, Office of State Police, issued a Notice of Violation to Clean Harbors Deer Park alleging that a container holding hazardous waste was improperly handled resulting in a release. Matter settled with the payment of 4200.00. (Report # H08-0120 dated 6/25/08).
- (2) The State of Louisiana Department of Public Safety and Corrections, Office of State Police, issued a Notice of Violation to Clean Harbors Deer Park alleging that a hazardous material container was reported leaking.

Matter settled with the payment of 1000.00. (Report # H08-0121 – dated 6/25/08).

- (3) The State of Louisiana Department of Public Safety and Corrections, Office of State Police, issued a Notice of Violation to Clean Harbors Environmental Services, Inc. alleging that a hazardous material container was reported leaking. Matter settled with the payment of 1000.00. (Report # H08-0140 – dated 7/23/08).

Massachusetts

Year

- 2009 (1) Consent Order and Notice of Noncompliance – File No. ACOP-CE-09-7003 dated 06/25/09 alleging that 2 vehicles operated by Clean Harbors Environmental Services, Inc. were observed idling their engines in excess of the established state threshold of 5 minutes. The matter was settled with the payment of a \$2000.00 civil administrative penalty and the acceptance of a corrective action plan distributed to all affected employees.

Year

- 2007 (1) Notice of Demand for Payment of Stipulated Penalties (ACOP-BO-04-2001-STP) dated 1/26/07 alleging that Clean Harbors Environmental Services submitted corrected electronic monthly operating reports with an unacceptable number of errors. Revised reports submitted along with a payment of \$2000.00.
- (2) Notice of Demand for Payment of Stipulated Penalties (ACOP-BO-04-2001-STP) dated 6/25/07 alleging that Clean Harbors Environmental Services took 4 days to submit a corrected electronic monthly operating report and pursuant to a stipulated penalty agreement, a penalty of 500.00 per day was assessed. A payment of 2000.00 was submitted to resolve the matter.

Missouri

Year

- 2007 (1) Notice of Violation dated 1/3/07 alleging Clean Harbors transported waste tires for disposal without a state issued permit. Matter settled with the submittal of a certificate of disposal certifying the tires were properly disposed of and the acknowledgement that future shipments will not be scheduled without first obtaining the required permit.

New Jersey

Year

- 2009 (1) Notice of Violation dated March 26, 2009 alleging that Clean Harbors Environmental Services failed to obtain the date and signature of continuing transporters that accepted material for continuing transportation at a 10-day in transit facility in Bridgeport, NJ. Matter resolved with the completion of a corrective action plan to retrain the

individual tasked with managing the in-transit facility.

New York

Year

- 2008 (1) The New York State Department of Environmental Conservation issued Clean Harbors an Order on Consent dated October 21, 2008 for failing to display the permit number on all three sides of a transport vehicle as required by the 364 Waste Transporter Permit. Matter settled with the payment of \$250.00.

Year

- 2007 (1) The New York State Department of Environmental Conservation issued Clean Harbors Environmental Services, Inc. an Order on Consent No. 9BU-237-11-07 for failing to keep material within the transport vehicle. Matter settled with the payment of \$500.00.

- (2) The New York State Department of Environmental Conservation issued Clean Harbors Environmental Services, Inc. an Order on Consent for failing to carry a valid copy of the waste transporter permit on the waste hauling vehicle. Valid copy of permit forwarded to driver and placed in vehicle's permit book.

Ohio

Year

- 2009 (1) Notice of Apparent Violation and Intent to Assess Forfeiture Case No. 3202304710c dated March 19, 2009 alleging that on March 3, 2009 a vehicle operated by Clean Harbors Environmental Services, Inc. failed to secure a package in a transport vehicle. Matter was resolved with the payment of a \$760.00 civil penalty.

- (2) Notice of Apparent Violation and Intent to Assess Forfeiture - Case No. 3278006411S issued to Spring Grove Resource Recovery, Inc. alleging that Spring Grove offered a shipment for transportation that was unsecured against rearward movement. Matter settled with the payment of an \$800.00 civil penalty.

Year

- 2008 (1) Notice of Apparent Violation Case No. 3213301625C dated February 15, 2008 alleging Clean Harbors transported a package not properly secured. The matter was resolved with the acceptance of a letter of warning.

Year

- 2007 (1) Notice of Apparent Violation and Intent to Assess Forfeiture Case No. 3213301469C dated January 24, 2007 alleging that Clean Harbors accepted a package with a closure device not properly in place or secured. Matter settled with the payment of \$975.00.

-
- (2) Notice of Apparent Violation and Intent to Assess Forfeiture Case No. 3202303910C dated January 30, 2007 alleging that Clean Harbors failed to secure packages for transportation. Matter settled with the payment of \$630.00.
 - (3) Notice of Apparent Violation and Intent to Assess Forfeiture Case No. 3229004226C dated February 1, 2007 alleging that Clean Harbors operated a vehicle with a placard not reading horizontally. Matter settled with the acceptance of a letter of warning.
 - (2) Notice of Apparent Violation and Intent to Assess Forfeiture Case No. 3211301130C dated March 6, 2007 alleging that Clean Harbors accepted a shipping paper improperly completed and failed to display the appropriate placard. Matter settled with the payment of \$1542.50.
 - (3) Notice of Apparent Violation and Intent to Assess Forfeiture Case No. 327600436C dated March 12, 2007 alleging that Clean Harbors operated a vehicle with an obscured placard. Matter settled with the acceptance of a letter of warning.
 - (4) Notice of Apparent Violation – Case No. 3238002350C dated June 18, 2007 and issued to Clean Harbors Environmental Services, Inc. alleging that a shipping paper did not contain the "RQ" preceding the shipping name as required. Matter settled with the acceptance of a letter of warning.
 - (5) Notice of Apparent Violation – Case No. 1577002783C dated June 18, 2007 and issued to Clean Harbors Environmental Services, Inc. alleging that a vehicle operated by Clean Harbors was missing a required placard. Matter settled with the acceptance of a letter of warning.
 - (8) Notice of Apparent Violation and Intent to Assess Forfeiture – Case Number 9432300219S alleging that a shipment of hazardous materials shifted en route resulting in one container becoming unsecured. Matter settled with the payment of a \$714.00.
 - (9) Notice of Apparent Violation dated December 27, 2007 alleging that a driver presented an hour of service record with an incorrect entry. Matter settled with the acceptance of a letter of warning.

Pennsylvania

Year

- 2007 (1) Consent Assessment of Civil Penalty dated July 3, 2007 between Clean Harbors Environmental Services, Inc. and the PA Department of Environmental Protection in the amount of \$6250.00 in response to a medical waste shipment that was destined for out of state disposal but was delayed in exiting the state. As a result, the incorrect shipping paper

was utilized and it did not contain all required elements as outlined by the State of PA. In addition, the shipment was not immediately delivered to the intended disposal facility and an alternate facility was not listed on the shipping paper.

Utah

- Year
2008 (1) Stipulation and Consent Order No. 0801003 dated September 4, 2008 finalizing a Notice of Violation and Order for Compliance No. 0711029 regarding several alleged violations of Clean Harbors Used Oil Transporter Permit. Specifically, Failed to test used oil for total halogen content and failed to maintain an adequate tracking program. Matter settled with the payment of \$11,000.00 penalty and was required to update its exiting Transporter Permit.

District of Columbia, Washington

- Year
2007 (1) The US DOT, Federal Railroad Administration issued an Order Assessing Civil Penalty (CASE No. CZHS 2006-1 HMT) to Clean Harbors of Braintree, Inc. for shipping a hazardous material that was improperly secured and leaking. Matter settled with the payment of a \$9500.00 penalty.



Clean Harbors Environmental Services
OSHA Citation Log - 2007-2010

Location	Date	Standards	Violation	\$
Deer Park, TX	12/8/09	29 CFR 1904.29(b)(1)	Other	0
Maine Industrial Services, South Portland, ME	5/16/08	5(a)(1) General Duty Clause	Serious	\$4,000
Sparks NV	3/19/08	Nevada Revised Statute 618.375(1)	Other	0
Braintree, MA	12/28/2007	29 CFR 1910.24(h)	Serious	\$1190.00
		29 CFR 1910.37(b)(4)	Other	\$850.00
		29 CFR 1910.147(c)(4)(ii)	Serious	\$0
		29 CFR 1910.178(l)(4)(iii) & 29 CFR 1910.178(l)(6)	Serious	\$1487.00
		29 CFR 1910.178(p)(1)	Serious	\$1488.00
Edison, NJ	7/19/2007	29 CFR 1910.1450(e)(4)	Other	\$0
		29 CFR 1926.95	Other	\$1250.00

Other = Other Than Serious

Summary of Incident and Corrective Actions regarding 12/8/09 OSHA Citation

Following an anonymous complaint related to a 9/11/09 incident at the Deer Park, TX plant where a water tank over pressurized, OSHA conducted an investigation of the overall H&S program at the plant from 10/7/09 to 11/18/09. At the conclusion of this investigation, OSHA issue one "other than serious" citation for the facility's failure to maintain the accurate count of lost work days and restricted activity days on the OSHA 300 logs for 2006, 2008, and 2009. These inaccuracies were corrected on the spot.

Summary of Incident and Corrective Actions regarding 5/16/08 OSHA Citation

Following an incident that occurred on a project site on May 16th, 2008 OSHA inspectors levied two serious citations upon Clean Harbors. The incident occurred when a critical component on a piece of equipment failed resulting in the employee being injured. An informal settlement agreement was reached with OSHA, reducing the penalty on one serious citation, and removing the other serious citation and penalty altogether. Our abatement for this citation has been completed and involved a company wide inspection of other equipment from this same manufacturer and retrofitting any units that had the same type of component that failed. In addition to retrofitting the equipment, we also implemented revised procedures for the pre-use inspection of this type of equipment.



Summary of Incident and Corrective Actions regarding 3/19/08 OSHA Citation

Following an incident that occurred at the Clean Harbors Sparks NV location on March 19th, 2008 NV OSHA inspectors cited CHES for failing to provide a workplace free of hazards to its employees. The incident occurred when an employee fell to the ground after a six foot tall folding step ladder the employee was standing on failed. The employee suffered contusions as a result of this fall. The original citation was classified as serious in nature. An informal settlement agreement was reached with OSHA resulting in the citation being changed to "other" status. The penalty for this citation was removed. Our abatement for this citation has been completed and involved retraining all employees on the proper use and inspection of portable ladders. The damaged ladder was removed from service.

Summary of Incident and Corrective Actions regarding 12/28/07 OSHA Citations

Following an inspection at the Braintree, MA facility, OSHA issued two citations. The citations included the following miscellaneous issues. One life safety code citation identified a stairway was missing a hand railing for a 4-step stairway and one door was missing an exit sign. The other focused on forklift operations. A forklift operator was overdue his tri-ennial performance evaluation and an inspection deficiency had not been immediately repaired. All of these conditions have been corrected.

Summary of Incident and Corrective Actions regarding 7/19/07 OSHA Citation

Following an inspection at a New York City, NY job site, OSHA issued 1 citation. After further discussions with OSHA, the citation was changed to "other" status. The penalty for this citation was also reduced. Our abatement for this citation has been completed and involved retraining all employees on the proper use of personal protective equipment.



Enforcement Action Summary Report

Facility: *El Dorado*

Date Received	Agency	Enforcement Type	Alleged Violation	Proposed Penalty	Status	Resolution Date	Penalty Paid
4/20/2007	ADEQ	Consent Administrative Order	1) Storage of LDR materials > 365 days; 2) Storage of waste in SHA for > 24 hours; 3) Failure to record location of waste.	\$261,450.00	Resolved	7/12/2007	\$86,000.00

Description of Resolution:

No Further Action Letter from ADEQ dated 1/26/09

12/18/2007

ADEQ

Consent Administrative Order

1) Facility did not transfer contents of leaking container to new container; 2) Facility did not transfer contents of collapsed container to new container; 3) Cracked secondary containment in Day Tank area; 4) Carbon canisters blocked ability to inspect secondary containment; 5) Facility did not inspect 46 containers of waste that turned upon opening 6) Facility did not visually inspect containers of waste prior to receipt; 7) Tank overfill controls were disabled, resulting in overfill of tank; 8) New overfill control device was installed without notification of Director; 9) Modification notice was not sent to facility mailing list.

\$11,562.00

Resolved

9/17/2008

\$11,562.00

Description of Resolution:

Class 1 mod to amend WAP for inspecting waste that can not be opened and inspected. Daily inspections of overfill controls.

4/7/2008

ADEQ - Air

Notice of Violation

Dismissed

4/1/2009

\$0.00

\$0.00

1) Failure to identify and flag for removal two waste streams containing excessive concentrations of Benzidine in one instance and Allyl Chloride in the other. 2) Insufficient records available to determine compliance with the metals feed limits established in Plantwide Condition 14 for Source numbers 1 and 2

Description of Resolution: Notice of violation rescinded.

9/8/2008

Water Enforcement Branch, ADEQ

Notice of Violation

Pending

\$0.00

\$0.00

On 9/8 our wily D009 outfall sample had a chloride result of 1690 mg/l, which is an exceedance of permitted limit of 631 mg/l.

Description of Resolution: Suspect sample contamination may have occurred for this sample - possibly the sample jar contained hydrochloric acid preservative which resulted in high chloride reading - water treatment operators have been instructed to ensure the correct sample jars containing the proper preservatives are

3/23/2009

ADEQ

Notice of Non-Compliance

Resolved

1/27/2010

\$0.00

\$0.00

Received letter from Arkansas Dept. of Environ. Quality. - Haz Waste Division for significant non-compliance re: the leaking saturator.

Description of Resolution: Resolved as part of 8/20/09 NOV

Non-Compliance: Failure to analyze the waste analysis procedures; holding haz waste longer than 24 hours in special handling area; failure to carry out the provisions of the contingency plan whenever there is a fire, explosion or other release of haz waste; Failure to have an emergency coordinator on-site or on call to coordinate emergency response measures; Failure to notify the Director that the facility if in compliance before ops are resumed in the affected areas; Failure to provide for treating, storing, or disposing of recovered waste that results from release, fire or explosion at the facility.

\$0.00

Resolved

1/27/2010

Description of Resolution:

Resolved as part of 8/20/09 NOV

5/14/2009 ADEQ-Haz Waste Div. Notice of Violation

Failure to take precautions to prevent reactions which generate extreme heat or pressure, fire or explosions; Failure to provide for treating, storing, or disposing recovered waste; contaminated surface water; or any material that results from a release, fire or explosion at facility inmed. After emergency; failure to notify Director that facility in compliance w/paragraph (h) of 264.56 before ops are resumed in affected area of facility; Holding haz waste longer than 24 hours in Barrel Processing area; Failure to record location of each haz waste w/in facility & quantity at ea location; Failure to design, construct, maintain & operate facility to minimize possibility of fire, explosion or any unplanned sudden/non-sudden release of haz waste or haz waste constituents to air, soil, or surface water which could threaten human health or environ.

\$0.00

Resolved

1/27/2010

\$0.00

Description of Resolution:

Resolved as part of the 8/20/09 NOV

Description of Resolution:

8/13/2009	ADEQ	Notice of Violation	Air Operating Permit Violation: a boiler was moved from another Clean Harbors location to El Dorado prior to the boiler being added to the air permit. This placement of the boiler w/out consent from ADEQ is a violation of General Provision #23.	\$0.00	Pending	\$0.00
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Description of Resolution:

8/20/2009	ADEQ	Consent Administrative Order	Failure to follow waste analysis procedures; storage of non-water reactive wastes and non-oxidizer wastes in permitted areas designated for water reactive and oxidizer wastes, hole and leaking observed in saturator, insufficient insurance policy language.	\$149,500.00	Resolved	\$0.00
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Description of Resolution:

Submit various permit modifications to reflect the negotiated resolution, payment of \$70,000 penalty and revision of specified standard operating procedures.



Enforcement Action Summary Report



Facility: Chattanooga

Date Received	Agency	Enforcement Type	Alleged Violation	Proposed Penalty	Status	Resolution Date	Penalty Paid
3/12/2007	City of Chattanooga	Warning Letter/Notice	1) SPCC Plan is out of date; 2) Protective barrier not in place around the propane tank; 3) Sedimentation occurring around outfall A.	\$0.00	Resolved w/o Penalty		\$0.00
Description of Resolution:							
4/24/2007	TDEC	Notice of Violation	1) SWPPP and SPCC plans not current;	\$0.00	Resolved w/o Penalty		\$0.00
Description of Resolution:							
5/8/2008	Chattanooga Air Pollution	Notice of Violation	Facility had gaseous emissions from the drying pad that were detectable beyond the plant boundaries	\$0.00	Resolved	5/8/2008	\$0.00
Description of Resolution:							
Facility eliminated cause of odors							

Description of Resolution:

8/5/2009	POTW	Warning Letter/Notice	The Chattanooga WWT plant exceeded the CWT daily max for lead on 7/6/09. Our primary lab reported lead levels at 382 ppm. Our secondary lab reported lead levels on our retained sample at 17ppm. The daily allowed limit is 222. The in-house QC results on all inbound loads during the discharge timeframe showed acceptable lead levels. The QC results on the treated tank also show acceptable lead levels prior to discharge.	\$0.00	Pending
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Description of Resolution:



Enforcement Action Summary Report



Facility: *Lafayette*

Date Received	Agency	Enforcement Type	Alleged Violation	Proposed Penalty	Status	Resolution Date	Penalty Paid
6/8/2007	FRA	Notice of Violation	Facility did not provide IATA training for two employees and did not maintain records for these people	\$7,500.00	Pending		\$0.00
Description of Resolution:							
12/7/2007	USEPA Region VI	Notice of Violation	Failure to update facility emergency contact list	\$600.00	Resolved	3/3/2008	\$600.00
Description of Resolution:							
11/18/2008	Texas Commission on Environmental Quality	Notice of Violation	Failure to submit monthly water sample for coliform analysis in September 2008	\$0.00	Resolved w/o Penalty	12/15/2008	\$0.00
Description of Resolution:							
10/6/2009	CA Dept of Toxic Substances Control	Penalty Notice	Haz Waste manifests submitted by Clean Harbors were found to have errors. \$20.00 standard fee for resubmittal.	\$20.00	Resolved		\$20.00
Description of Resolution:							



Enforcement Action Summary Report

Facility: Hebron Recycle

Date Received	Agency	Enforcement Type	Alleged Violation	Proposed Penalty	Status	Resolution Date	Penalty Paid
10/16/2006		NOV-Transportation	Now for self-report of an exceedance of wastewater discharge limit for silver at 2.5 mg/l vs 2.0 mg/l discharge limit from August 1, 2008 sampling event.	\$1,000.00	Resolved	11/30/2008	\$1,000.00
Description of Resolution: Paid fine.							
11/14/2006	Village of Hebron	Notice of Violation	Facility rec'd an NOV for exceeding wastewater discharge permit limit for silver for October, 2008. Facility discharge was 4.3 mg/l vs. 2 mg/l permit limit.	\$1,000.00	Resolved	12/31/2008	\$1,000.00
Description of Resolution: Paid fine.							
4/3/2009	OEPA	Compliance Advisory	Inspecting the emergency equipment each calendar week but not to the definition of Ohio Regulations for weekly in that some inspections had greater than 7 days between inspections. Failure to resolve conflict between the profile and how the waste was actually manifested.	\$0.00	Resolved w/o Penalty		\$0.00
Description of Resolution: Submitted a permit modification to clarify the language of the inspection frequency. Updated unmanifested waste report procedures.							

Exceedance of Aneic and extended solids in the May, 2009 discharge monitoring reports. \$1,801.49 Resolved 6/29/2009 \$1.49

Description of Resolution: Paid Fine

6/14/2009 Village of Hebron Notice of Violation

The Village of Hebron performs monitoring on the discharge twice per year. The POTW/village monitoring event occurred in June 2009. Two parameters Nickel and Phenols were found to be out of compliance. Facility billed \$853.00 for analytical costs. \$853.00 Pending \$0.00

Description of Resolution:

9/18/2009 Village of Hebron Notice of Violation

Exceedances re: POTW permit. Solids increased as well as areenic in discharge waters due to using a new caustic source. \$6,573.00 Resolved 9/11/2009 \$6,574.23

Description of Resolution: Paid assessed penalty.

9/25/2009 Ohio EPA Notice of Violation

1) Acceptance of improperly labeled waste, 2) Failure to submit an unmanifested waste report \$0.00 Resolved w/o Penalty 11/5/2009 \$0.00

Description of Resolution: Provided proof of corrected label and updated procedures

11/24/2009

OEPA

Notice of Violation

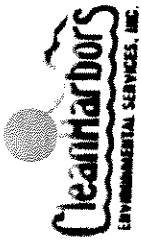
NOV issued by OEPA for 2006 annual report not reconciling adequately. GIM forms not issued for material that was sent for fuels.

\$0.00

Pending

\$0.00

Description of Resolution:



Enforcement Action Summary Report



Facility: Deer Park

Date Received	Agency	Enforcement Type	Alleged Violation	Proposed Penalty	Status	Resolution Date	Penalty Paid
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2/9/2009	TCEQ	Warning Letter/Notice	Notice pertaining to self-reported data for POX/NPOX for the time period of 7/2007 to 6/2008. Failure to comply with permit effluent for purgeable organic halides; failure to comply with other permit effluent limits during the period of 7/2007 thru 6/2008.	\$0.00	Pending		\$0.00
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Description of Resolution:

TCEQ has suggested reopening the wastewater permit to clarify the standards.

4/8/2009	TX Commission on Environ. Quality	Notice of Violation	Failure to provide secondary treatment for domestic waste water treatment at domestic waste water treatment plant; Failure to maintain compliance with permit effluent limits for chlorine at domestic waste water treatment plant; Failure to meet the effluent permit limit for Total Suspended Solids at the domestic waste water treatment plant.	\$0.00	Resolved w/o Penalty	9/22/2008	\$0.00
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Description of Resolution:

Provided additional documentation to the TCEQ.



Enforcement Action Summary Report

Facility: Spring Grove

Date Received	Agency	Enforcement Type	Alleged Violation	Proposed Penalty	Status	Resolution Date	Penalty Paid
3/27/2007	OEPA	Notice of Violation	Improper sampling of incoming waste	\$0.00	Resolved w/o Penalty		\$0.00
Description of Resolution:							
4/6/2007	OEPA	Notice of Violation	Errors on 2006 annual report	\$0.00	Resolved w/o Penalty		\$0.00
Description of Resolution:							
10/31/2007	OEPA	Notice of Violation	Site did not document inspections that occurred on Saturdays for ~ 20 days	\$0.00	Resolved w/o Penalty	10/31/2007	\$0.00
Description of Resolution:							
3/21/2008	OEPA	Notice of Violation	NOV for open box of universal waste lamps. Immediately corrected	\$0.00	Resolved w/o Penalty	3/21/2008	\$0.00
Description of Resolution:							

1) Facility did not immediately report instance of non-compliance during summer of 2006; 2) Facility did not reconcile manifest discrepancy within 15 days; 3) Facility did not properly manifest hazardous waste sent to Cleveland facility

\$0.00

Pending

\$0.00

4/7/2008

MSD

Notice of Violation

Exceedance of wastewater effluent limit for Bis (2-ethylhexyl) phthalate

\$1,000.00

Pending

\$0.00

Description of Resolution:

7/22/2008

MI DEQ

Notice of Violation

Failure to return manifest copies to MI DEQ within 10 days of receipt.

\$0.00

Resolved

8/22/2008

\$0.00

Provided copies of the manifests

Description of Resolution:

1/9/2009

Metropolitan Sewer District

Notice of Violation

Bis(2-ethylhexyl) phthalate discharge exceedance

\$0.00

Resolved w/o Penalty

8/25/2009

\$0.00

Description of Resolution:

Written explanation of the cause of the exceedance provided to MSD.

2/3/2009

DOT

NOV-Transportation

Facility received a PUCO violation for unsecured load (Spring Grove to Cleveland).

\$800.00

Resolved

\$800.00

Description of Resolution:

2/26/2009

MSD

Notice of Violation

Received NOV from Metropolitan Sewer District (MSD) resulting from 9-30-08 discharge monitoring event. MSDs internal lab got 2,4,6 Trichlorophenol result of 1.004 ppm.

\$0.00

Pending

\$0.00

Description of Resolution:

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center

ENGINEERING REPORT (4.5.1.4.)

Attached is a copy of the Engineering Report for the CRC prepared by the DSWA. Facility drawings prepared by CABE Associates and a site plan showing the collection station operating area prepared by DSWA are attached in the drawings section.

2-105 01 10-00

Engineering Report

4.E.1.d.(1) Descriptions, plans, and specifications of all proposed design features.

The attached plans show the existing structures. No additional design features are proposed at this time. The existing features include paved driving areas, paved areas for disposal containers, fenced household hazardous waste collection area, 'Recycle Delaware' area, perimeter fencing and an attendant's shed.

It has been utilized as a collection facility for municipal solid waste, household hazardous waste and source segregated recyclable materials in the past and no change in use is proposed at this time.

4.E.1.d.(2) A description of the proposed installation methods and procedures.

No additional design features are proposed at this time.

4.E.1.d.(3) A schedule of events for the construction of the facility.

No additional design features are proposed at this time.

4.E.1.d.(4) Proposed design capacity in both tons and cubic yard per day.

The facility can handle approximately 22 tons or 72 yards per day.


Anne M. Germain, P.E.

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

HYDROGEOLOGICAL ASSESSMENT (4.5.1.5.)

A Hydrogeological Assessment was not deemed necessary by DNREC under the original site application and the DSWA believes a hydrogeological investigation is not warranted for this site.

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

ENVIRONMENTAL ASSESSMENT (4.5.1.6.)

An Environmental Assessment was not submitted under the original application.
Attached is an Environmental Assessment performed this year by DSWA.

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

ENVIRONMENTAL ASSESSMENT

February 8, 2011

This Environmental Assessment is for the site known as the Cheswold Recycling Center (CRC) owned and operated by the Delaware Solid Waste Authority (DSWA). The site is located off County Road 153, between Cheswold and Dover, Delaware. The CRC has been in operation since July 1991. The original permit application to DNREC to operate the facility did not require the submission of an Environmental Assessment. Therefore, this assessment is being performed on an existing operation.

Site Description - The CRC is a site which collects bagged household waste from residents. The bagged waste is placed in front-end boxes and emptied into garbage trucks for transporting to an approved landfill. A Household Hazardous Waste Collection Program is also held at the site according to the approved Household Hazardous Waste Recycling Program (HHW). No hazardous wastes are stored on site. There is a recycle Delaware Site on the front part of the property and yard waste collection within the fenced area.

The approximate eleven (11) acre parcel is enclosed with an eight (8) foot chain-link fence with gates to the residential drop-off area and HHW collection area. Both areas are paved. Two (2) relocatable sheds are on site. One (1) 12'x16' shed is located on the residential drop off pad with electric and phone service. Another (10'x12') shed is located near the HHW area.

The property is predominately cleared land, which was previously used as farmland. All the area within the perimeter fence is clear. Various wetlands exist on site and have been avoided during the construction of the paved roads (see Wetlands Report). The property is adjacent to the Chesapeake Utilities yard.

An existing swale is located on the west end of the site, outside the fenced areas. The terrain of the site is flat.

Impact of Development - An assessment of the effects of the construction/operation of the site on the environment was considered on the following factors:

Aesthetics – The center is located in an area of mixed commercial, industrial and residential properties. Improvements on the site are minimal and are consistent with the visual aesthetics of the area.

Air Quality - Considering that the center only accepts bagged household waste, odors or vapor releases are unlikely. The bagged waste is stored in covered containers and emptied on regular intervals. During the twenty (20) year operation of the station, no odor complaints have been received.

Cultural, Recreational, and Natural Areas - This site does not offer any recreational benefits for the area. There is likely no cultural impact from the operation of the station. The wetlands, which are located on site, have been avoided during construction. There should be no impact to the wetlands from the operation of the site.

Fish and Wildlife – The center has been in use on this site for approximately 20 years. Prior to that it was farmland. No wildlife habitats have been or will be disturbed with continued use.

Historic Sites - The site was previously used for agricultural purposes and no buildings/structures were on site when the DSWA purchased the property. During the small amount of excavation work necessary to pave the area, no evidence was found to indicate an historic site.

Land Use - The location of the CRC was chosen to provide good access to the site from the surrounding areas. The site is located within 0.5 miles off Route 13. The improvements to the site are primarily the perimeter fencing, two (2) small portable sheds, and asphalt paving. There should be little impact to the surrounding land uses which are mixed commercial, industrial, and residential.

Plants – The site is predominantly cleared land that was previously used as farmland. All unpaved areas are stabilized with grass and mowed regularly. A wooded area on the northern corner of the site was cleared when the site was initially developed. The remaining wooded areas to the south and all of the wetlands areas were avoided when developing the site.

Public Health and Safety - The CRC offers the household residents in the area a convenient, safe, and controlled method for the disposal of household waste. Vectors at the CRC should not be a problem since the waste is bagged and stored in containers. The operation of the site provides an alternative for the customers who don't have commercial trash pickup, or don't want to drive to the

nearest transfer station (located approximately 20 miles to the north) or landfill (located approximately 25 miles to the southwest).

Social and Economic Factors - The only social/economic factor effected is the site's employment of the two (2) site operators for the residential area. Currently both operators are from the local area. The operation of the HHW employs several workers also.

Soil Quality - The installation of the paving was the majority of construction activities on site. No soil quality disturbance was observed during the construction of the paving. Operations of the site should have no impact on the quality of the soil.

Stream Flow - No streams flow through the site. Storm water runoff from the paved areas is controlled through existing ditches. There are no other water discharges from the site.

Threatened or endangered species - No threatened or endangered species are believed to inhabit the site. The site is cleared land with a seasonal wetlands area.

Traffic - Traffic using the CRC is generally residential traffic. The site has a long paved area before the residential and HHW areas (large cue area). Historically, the site has had approximately 40 customers per operating day. Since the site is close to Route 13, most customers are likely to use Route 13 to access/leave the site. County Road 153 is a two-lane road which has a deceleration lane to the site for east bound traffic. During the twenty (20) year operation of the site, there has been no indication of the facility's operation causing traffic problems on County Road 153.

Water Quality - There is not a potable water well on site. Bottled water is provided to operations personnel. Since the waste is bagged and stored in containers, the likelihood of a release of leachate is minimal. Storm water which runs off the paved areas is controlled by existing drainage ditches. No septic system is on site. A portable toilet is provided for the operations personnel.

Water Use - There are no potable water wells or irrigation wells on site, therefore there should be no impact on the area's water supply due to this operation.

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center

TOPOGRAPHIC AND SITE MAPS (4.5.1.7.)

4.5.1.7

Site topography can be found on the Site Plan with Topography including 100 year Flood Boundary, prepared by CABA Associates. This drawing can be found in the drawings section.

4.5.1.7.1

See the attached property line survey prepared by Elliott Surveying (dated 4/12/91). This drawing can be found in the drawings section.

4.5.1.7.2

The boundaries where solid waste will be stored at any time over the estimated total life of the proposed operation are the front-end boxes. See the attached plot plan by DSWA dated 12/16/11. This drawing can be found in the drawings section.

4.5.1.7.3

Please see the attached information on water well information as supplied by the Water Supply Branch of DNREC.

4.5.1.7.4

The closest airport to the Cheswold Recycling Center (CRC) is the Delaware Airpark. The Airpark is 1.7 miles Northwest of the CRC. Location and distance is shown on the attached map.

**WELL RECORD REQUEST
AND
WELL LISTING**

**Relevant Section
4.5.1.7.3**

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
WATER SUPPLY SECTION

PUBLIC RECORD REQUEST

I request to review the following documents pursuant to the Freedom of Information Act ("FOIA"), Title 29, Delaware Code, Chapter 100. I request access to or a copy of the following Division of Water Resources, Water Supply Branch public records. Please contact Jackie Young at 302-739-9944 or jackie.young@state.de.us for information on additional charges for generating reports from electronic data. (The Department's FOIA Regulation sets forth both administrative and photocopying fees associated with the fulfillment of a FOIA request. Certain requestors may be eligible for the complete waiver of administrative fees and a waiver of the first \$25.00 of photocopying fees.)

1. Please provide an explanation of the records requested. Be as specific as possible. Please type or print legibly.

Locations and names of water supply wells and surface
water intakes within 1/4 mile of DSWR collector station located
at Kent County Tax Map Number 2 00-05100-01-0700-00001

2. Geographic Searches: If the request involves a geographic search, please provide a completed TEPP checklist and a comprehensive map showing the area to be searched with at least three roads properly labeled. Where possible, please include tax map parcel numbers.

3. Name: Michael Lenkiewicz Company Name: Delaware Solid Waste Authority
Mailing Address: 1107 Willow Grove Road, Felton, DE 17743
Phone: 302-735 8056 Fax: 302-284-8136

Please send the database report to me via fax: Yes ☒ No ☐

I agree to provide payment for all charges incurred.

Signature: [Signature] Date: 1/7/11

PLEASE MAKE CHECKS PAYABLE TO "DIVISION OF WATER RESOURCES"

- FOR DNREC USE ONLY - DO NOT WRITE BELOW THIS LINE -

Request Approved: _____	Request Denied: _____	Reason for Denial: _____
_____ Photo Copies @ \$.10 = _____ + Additional cost of _____ = _____ Total		
DNREC Custodian Signature: _____		Date: _____

Send Payment To:
Division of Water Resources
Well Permit Branch
63 Kings Highway
Dover, DE 19901

For Information Contact:
Jackie Young
302-739-9944
jackie.young@state.de.us

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
WATER SUPPLY SECTION

WELL PERMITS BRANCH

(302) 739-9944

January 10, 2011

Michael R. Lenkiewicz, P.E.
Facility Engineer
Delaware Solid Waste Authority
(302) 735-8056
(302) 284-8136 FAX

Dear Mr. Lenkiewicz:

Pursuant to your document request, I have enclosed the necessary information. Well logs are not in the database, but they are on the completion reports. To request copies of the completion reports (less than 20) please call the office.

If everything is in order please remit a check in the amount of \$15.00 made out to the
DIVISION OF WATER RESOURCES as soon as possible. Please mail to:

DNREC
WATER SUPPLY SECTION
ATTN: JACKIE YOUNG/LORI LEPKOWSKI
89 KINGS HIGHWAY
DOVER, DE 19901

Should you have any questions or need further assistance, please do not hesitate to call me at
302-739-9944. It was a pleasure working with you.

Sincerely,

Lori Lepkowski

PermitNumb	LocalWell	WellType	Owner	TotalDepth	TotalDep_1	DGSid
201223		Domestic - Standard	Reynolds, Barry N	0.00	100.00	
231824		Domestic - Standard	Morris, Dawn E	50.00	0.00	
39146		Domestic - Standard	Hughes, Esther M	0.00	24.00	
201742		Domestic - Standard	Hughes, Esther M	0.00	140.00	
201873		Domestic - Standard	Hughes, Esther M	0.00	130.00	
43980		Domestic - Standard	Murphy, Charles E	0.00	110.00	
159101	REICHOLD CHEMICALS	Industrial - Standard	Reichold Chemicals, Inc	0.00	175.00	
41961	REICHOLD CHEMICALS	Industrial - Standard	Reichold Chemical Inc	0.00	185.00	
227922		Monitor - Direct Push	Dow Reichhold Specialty Latex	15.00	15.00	
227923		Monitor - Direct Push	Dow Reichhold Specialty Latex	15.00	15.00	
154605		Monitor - Direct Push	Reichold Chemicals, Inc	0.00	18.00	
154608		Observation - Standard	Reichold Chemicals, Inc	0.00	18.00	
50011		Observation - Standard	Reichold Chemical Inc	0.00	12.00	
50012		Other - Standard	Reichold Chemical Inc	0.00	12.00	
50013		Other - Standard	Reichold Chemicals, Inc	0.00	12.00	
105285		Other - Standard	Chesapeake, Utilities	0.00	100.00	
50010		Other - Standard	Reichold Chemical Inc	0.00	12.00	
103981		Public - Standard	Korean Baptist, Church	0.00	120.00	
168867		Public - Standard	Cottman, Charles	0.00	140.00	

PermitNumb	TaxID	SepticPerm	wellauthco	WellStatus	EstMaxCapa	EstDailyUs	Req	EstConstru	ProposedDr
201223				Active	0	0	NO		Unknown
231824	ED-00-057.00-01-04.00.000			Issued	10	1000	NO		Mud Rotary
39146				Pending	0	1000	NO	8/9/1977	Driven
201742				Voided	10	500	NO		Unknown
201873				Active	10	300	NO	6/3/2004	Mud Rotary
43980				Active	0	1000	NO	7/20/1979	Mud Rotary
159101				Active	225	0	NO	7/30/1998	Unknown
41961				Active	250	360000	NO	11/14/1978	Mud Rotary
227922	ED-00-057.00-01-11.00.000	n/a	4491037	Well Abandoned	0	0	NO		Geo-Probe
227923	ED-00-057.00-01-11.00.000	n/a	4497300	Well Abandoned	0	0	NO		Geo-Probe
154605				Active	0	0	NO	11/6/1997	Geo-Probe
154608				Active	0	0	NO	11/6/1997	Geo-Probe
50011				Active	1	0	NO	12/11/1981	Augered
50012				Active	1	0	NO	12/11/1981	Augered
50013				Active	1	0	NO	12/11/1981	Augered
105285				Active	10	300	NO		Mud Rotary
50010				Active	1	0	NO	12/11/1981	Augered
103981				Active	10	300	NO	8/31/1995	Mud Rotary
168867				Permit Expired	20	2000	NO		Unknown

PermitNumb	Formation	PumpMaker	PumpIntd	PumpTst4	PumpRa	PumpTestTi	Pumping	RStaticWa	WaterLevel	WellTermun
201223			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	8.00
231824			0.00	0.00	0.00	0.000000000000	0.00	N	0.00	0.00
39146			0.00	0.00	0.00	0.000000000000	0.00	0	9.00	0.00
201742			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	8.00
201873	Undetermined		0.00	20.00	0.00	2.000000000000	100.00	0	35.00	8.00
43980	Undetermined		0.00	20.00	0.00	6.000000000000	25.00	0	6.00	0.00
159101	Undetermined		0.00	126.00	0.00	24.000000000000	121.00	0	58.00	24.00
41961	Undetermined		0.00	180.00	0.00	24.000000000000	139.00	0	43.00	2.00
227922	Undetermined		0.00	0.00	0.00	0.000000000000	0.00	N	0.00	0.00
227923	Undetermined		0.00	0.00	0.00	0.000000000000	0.00	N	0.00	0.00
154605			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	0.00
154608			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	0.00
50011	Undetermined		0.00	0.00	0.00	0.000000000000	0.00	0	0.00	24.00
50012	Undetermined		0.00	0.00	0.00	0.000000000000	0.00	0	0.00	24.00
50013	Undetermined		0.00	0.00	0.00	0.000000000000	0.00	0	0.00	24.00
105285			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	0.00
50010	Undetermined		0.00	0.00	0.00	0.000000000000	0.00	0	0.00	36.00
103981			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	0.00
168867			0.00	0.00	0.00	0.000000000000	0.00	0	0.00	0.00

PermitNumb	WellTermin	R	R	ReplacedWe	WellAbando	WellAban_1	LocalID	AppRecDate	LocReviewD
201223	None						McKee Rd	5/12/2004	5/12/2004
231824		N						6/21/2010	6/21/2010
39146	None	Y					Rd 153A	8/4/1977	8/4/1977
201742	None	Y					Emergency	6/2/2004	6/2/2004
201873	None	Y					Huges Crossing	6/8/2004	6/8/2004
43980	Pitless Adaptor						Cr 156	7/19/1979	7/19/1979
159101	None						REICHHOLD CHEMICALS	5/6/1998	5/6/1998
41961	Other	Y					REICHHOLD CHEMICALS	8/30/1977	8/30/1977
227922	None	N						4/22/2009	4/23/2009
227923	None	N						4/22/2009	4/23/2009
154605	None						MW 1 - MW 10	10/16/1997	10/16/1997
154608							MW 11 - MW 20	10/16/1997	10/16/1997
50011	Other						Cr 153	12/7/1981	12/7/1981
50012	Other						Cr 153	11/13/1981	11/13/1981
50013	Other						Cr 153	12/7/1981	12/7/1981
105285		N						8/9/1995	8/9/1995
50010	Other						Cr 153	11/17/1981	11/17/1981
103981								4/11/1995	4/11/1995
168867	None	Y					CR 156	11/8/1999	11/8/1999

PermitNumb	ProposedCo	PermitAppr	ActualCon	Completion	Abandon	Reclassify	Potable	TestTemp	GMZ	WellPit
201223	5/12/2004	5/12/2004					No	No	No	No
231824	6/23/2010	6/23/2010					Yes	No	No	No
39146	8/4/1977	8/4/1977		8/9/1977			No	No	No	No
201742	6/2/2004	6/2/2004					No	No	No	No
201873	6/8/2004	6/8/2004		6/3/2004			No	No	No	No
43980	7/19/1979	7/19/1979		7/20/1979			No	No	No	No
159101	5/6/1998	5/6/1998		7/30/1998			No	No	No	No
41961	8/30/1977	8/30/1977		11/14/1978			No	No	No	No
227922	4/28/2009	4/28/2009		6/11/2009	5/4/2009		No	No	No	Yes
227923	4/28/2009	4/28/2009		6/11/2009	5/4/2009		No	No	No	Yes
154605	10/16/1997	10/16/1997		11/6/1997			No	No	No	No
154608	10/16/1997	10/16/1997		11/6/1997			No	No	No	No
50011	12/7/1981	12/7/1981		12/11/1981			No	No	No	No
50012	11/13/1981	11/13/1981		12/11/1981			No	No	No	No
50013	12/7/1981	12/7/1981		12/11/1981			No	No	No	No
105285	8/9/1995	8/9/1995					No	No	No	No
50010	11/17/1981	11/17/1981		12/11/1981			No	No	No	No
103981	4/11/1995	4/11/1995		8/31/1995			No	No	No	No
168867	11/8/1999	11/8/1999					No	No	No	No

PermitNumb	Replacem	AllocRevie	Sampled	CPCN	AgPrecDist	Floodplain	SmallLot	Injection	PCIV	Emergel	Confined	Reviewable
201223	No	No	No	No	No	No	No	No	No	No	No	No
231824	Yes	No	No	Yes		No	No	No	No	No	No	No
39146	No	No	No	No	No	No	No	No	No	No	No	No
201742	No	No	No	No	No	No	No	No	No	No	No	No
201873	No	No	No	No	No	No	No	No	No	No	No	No
43980	No	No	No	No	No	No	No	No	No	No	No	No
159101	No	No	No	No	No	No	No	No	No	No	No	No
41961	No	No	No	No	No	No	No	No	No	No	No	No
227922	No	No	No	Yes	No	No	No	No	No	No	No	No
227923	No	No	No	Yes	No	No	No	No	No	No	No	No
154605	No	No	No	No	No	No	No	No	No	No	No	No
154608	No	No	No	No	No	No	No	No	No	No	No	No
50011	No	No	No	No	No	No	No	No	No	No	No	No
50012	No	No	No	No	No	No	No	No	No	No	No	No
50013	No	No	No	No	No	No	No	No	No	No	No	No
105285	No	No	No	No	No	No	No	No	No	No	No	No
50010	No	No	No	No	No	No	No	No	No	No	No	No
103981	No	No	No	No	No	No	No	No	No	No	No	No
168867	No	No	No	No	No	No	No	No	No	No	No	No

PermitNumb	Existing	ScreenTop	ScreenBase	ScreenMate	MinWellDia	MaxWellDia	X	Y	Latitude
201223	No	0.00	0.00		0.00	0.00	186300.00000	133360.00000	39.201254
231824	No	0.00	0.00		0.00	0.00	186352.00000	133167.00000	39.199517
39146	No	0.00	0.00		0.00	0.00	186568.40000	133521.61000	39.202714
201742	No	0.00	0.00		0.00	0.00	186518.00000	133552.00000	39.202987
201873	No	118.00	130.00	PVC	4.00	4.00	186526.00000	133535.00000	39.202834
43980	No	95.00	110.00	PVC	4.00	4.00	186431.00000	133628.00000	39.203670
159101	No	150.00	172.00	Steel	8.00	8.00	186975.84000	133302.41000	39.200760
41961	No	153.50	176.00	Steel	10.00	10.00	186976.39000	133232.88000	39.200134
227922	No	5.00	10.00	PVC	1.00	1.00	186893.00000	133337.00000	39.201056
227923	No	5.00	10.00	PVC	1.00	1.00	186801.00000	133459.00000	39.202154
154605	No	0.00	0.00		0.00	0.00	186943.61000	133493.93000	39.202470
154608	No	0.00	0.00		0.00	0.00	186943.61000	133493.93000	39.202470
50011	No	8.00	12.00	PVC	1.20	1.20	186929.00000	133232.00000	39.200111
50012	No	8.00	12.00	Steel	1.20	1.20	186895.00000	133242.00000	39.200200
50013	No	8.00	12.00	PVC	1.20	1.20	186835.00000	133274.00000	39.200488
105285	No	0.00	0.00		0.00	0.00	186692.09000	133353.21000	39.201199
50010	No	8.00	12.00	Steel	1.20	1.20	186930.00000	133239.00000	39.200174
103981	No	0.00	0.00		0.00	0.00			
168867	No	0.00	0.00		0.00	0.00			

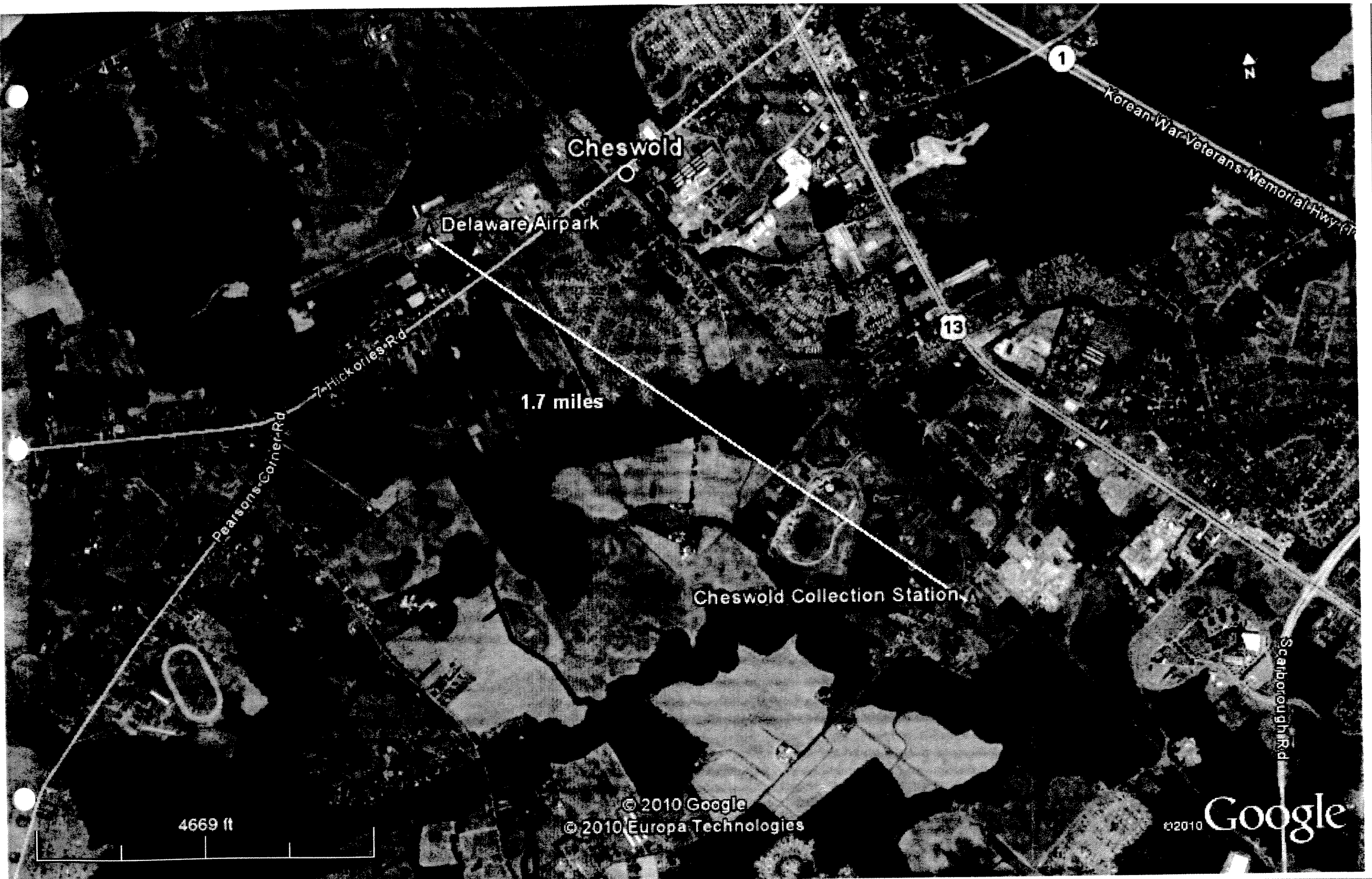
PermitNumb	longitude	LocationMe	ModGrid	Watershed	basin	USGSHyd	LicenseNum
201223	-75.575268	Map Interpolation-USGS Topographic	100-228	St. Jones River	Delaware Bay	02040207	933
231824	-75.574657	GPS-Unspecified	104-228	St. Jones River	Delaware Bay	02040207	201
39146	-75.572164	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	4058
201742	-75.572748	Map Interpolation-USGS Topographic	100-228	St. Jones River	Delaware Bay	02040207	101
201873	-75.572655	Map Interpolation-USGS Topographic	100-228	St. Jones River	Delaware Bay	02040207	101
43980	-75.573757	Map Interpolation-USGS Topographic	100-228	St. Jones River	Delaware Bay	02040207	4058
159101	-75.567442	GPS-Unspecified	104-228	St. Jones River	Delaware Bay	02040207	14
41961	-75.567435	GPS-Unspecified	104-228	St. Jones River	Delaware Bay	02040207	31
227922	-75.568398	GPS-Unspecified	104-228	St. Jones River	Delaware Bay	02040207	775
227923	-75.569465	GPS-Unspecified	104-228	St. Jones River	Delaware Bay	02040207	775
154605	-75.567820	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	1035
154608	-75.567820	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	1035
50011	-75.567984	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	4058
50012	-75.568378	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	4058
50013	-75.569073	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	4058
105285	-75.570729	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	201
50010	-75.567972	Map Interpolation-USGS Topographic	104-228	St. Jones River	Delaware Bay	02040207	473
103981		Map Interpolation-USGS Topographic	100-228	St. Jones River	Delaware Bay	02040207	933
168867		Map Interpolation-USGS Topographic	100-228	St. Jones River	Delaware Bay	02040207	

PermitNumb	WellContra	OwnerAddre	GroutTop	GroutBas	GroutMater	gravelTop
201223	Cowgill Drilling Inc	PO Box 1088, Clayton, DE 19938 US	0.00	0.00		0.00
231824	John's Well Drilling Inc	2564 McKee Road, Dover, DE 19904 US	0.00	0.00		0.00
39146	Walter E Welldriller	15 Hughes Crossing Road, Dover, DE 19904 US	0.00	0.00		0.00
201742	Lifetime Well Drilling Co	15 Hughes Crossing Road, Dover, DE 19904 US	0.00	0.00		0.00
201873	Lifetime Well Drilling Co	15 Hughes Crossing Road, Dover, DE 19904 US	2.00	118.00	Bentonite	118.00
43980	Walter E Welldriller	RD 5, Box 107, Dover, DE 19901 US	3.00	20.00	Bentonite	95.00
159101	A C Schultes Of Delaware	PO Drawer K, Dover, DE 19903 US	0.00	140.00	Neat Cement	60.00
41961	AC Schultes Inc	PO Drawer K, Dover, DE 19901 US	0.00	50.00	Neat Cement	0.00
227922	Tabasco Drilling Corporation		0.00	0.00		0.00
227923	Tabasco Drilling Corporation		0.00	0.00		0.00
154605	Vironex Inc		0.00	0.00		0.00
154608	Vironex Inc	PO Drawer K, Dover, DE 19903 US	0.00	0.00		0.00
50011	Walter E Welldriller	PO Drawer K, Dover, DE 19901 US	0.00	6.00	Bentonite	6.00
50012	Walter E Welldriller	PO Drawer K, Dover, DE 19901 US	0.00	6.00	Bentonite	6.00
50013	Walter E Welldriller	PO Drawer K, Dover, DE 19903 US	0.00	6.00	Bentonite	6.00
105285	John's Well Drilling Inc	PO Box 1769, Dover, DE 19901 US	0.00	0.00		0.00
50010	Earth Data Inc	PO Drawer K, Dover, DE 19901 US	0.00	7.50	Bentonite	7.50
103981	Cowgill Drilling Inc	PO Box 100, Dover, DE 19903 US	0.00	65.00	Bentonite	80.00
168867		119 Spring Street, Reading, PA 19601 US	0.00	0.00		0.00

PermitNumb	gravelBase	GravelMate	InnerCasin	InnerCas_1	InnerCas_2
201223	0.00		0.00	0.00	
231824	0.00		0.00	0.00	
39146	0.00		0.00	0.00	
201742	0.00		0.00	0.00	
201873	130.00	Gravel	0.00	118.00	PVC
43980	110.00	Gravel	0.00	110.00	PVC
159101	172.00	Gravel	0.00	150.00	Steel
41961	0.00		0.00	153.50	Steel
227922	0.00		0.00	5.00	PVC
227923	0.00		0.00	5.00	PVC
154605	0.00		0.00	0.00	
154608	0.00		0.00	0.00	
50011	12.00	Gravel	0.00	8.00	PVC
50012	12.00	Gravel	0.00	8.00	Steel
50013	12.00	Gravel	0.00	8.00	PVC
105285	0.00		0.00	0.00	
50010	12.00	Gravel	0.00	8.00	Steel
103981	120.00	Gravel	0.00	0.00	
168867	0.00		0.00	0.00	

AIRPORT RUNWAY DISTANCE

**Relevant Section
4.5.1.7.4**



Cheswold

Delaware Airpark

1.7 miles

Cheswold Collection Station

4669 ft

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Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)s

**PROOF THAT ALL APPLICABLE PERMITS, LICENSES, AND
APPROVALS HAVE BEEN OBTAINED OR APPLIED FOR (4.5.1.8.)**

Since the Cheswold Recycling Center (CRC) is already constructed and is currently operating under permit SW-01/04 from DNREC, all applicable permits have been obtained. The DSWA believes that the CRC has obtained all the necessary permits for the operation of the facility. For your convenience, we have attached the information on the site entrance permit.



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
P. O. Box 778
DOVER, DELAWARE 19901

RECEIVED
AUG 29 1991
DELAWARE
SOLID WASTE AUTHORITY

COMMERCIAL ENTRANCE PERMIT

DISTRICT CENTRAL PHONE NO. (302) 736-4841
ISSUED TO DELAWARE SOLID WASTE AUTHORITY P.O. BOX 455, DOVER, DE 19902
BUSINESS NAME DELAWARE SOLID WASTE AUTHORITY AKA CHESWOLD RECYCLE CENTER
APPROVED FOR AN ESTIMATED VOLUME OF TRAFFIC OF _____ AVERAGE DAILY TRAFFIC
LOCATION KENT COUNTY ROAD 153 APPROXIMATELY 260 FT. FROM KENT COUNTY ROAD
153A

On AUGUST 20, 1991 an inspection of the above entrance was made and the entrance was found to be in compliance with the Division of Highways Specifications, Traffic & Safety Standards, and (if applicable) according to plans approved by JOHN R. COFFIN, JR., PERMIT & UTILITY MANAGER

Should this property be sold, or the size or type of the business be changed to which there is an increase in volume of traffic, the entrance will require a review by the District Permit Office, (North District - 571-2647, Central District - 736-4841, South District - 856-5206). At such time a design change may be required, or a new permit will be issued accordingly.

By copy of this letter the 150% security offered to the Division of Highways to guarantee the construction of this entrance is hereby released.

- ☐ Surety Bond
- ☐ Irrevocable Commercial Letter of Credit
- ☐ Certified Check
- ☐ None Required

DATE APPROVED _____ APPROVED BY _____
District Permit Supervisor



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
P.O. Box 778
DOVER, DELAWARE 19903

DIVISION OF ADMINISTRATION

MICHAEL N. CASTLE
GOVERNOR

KERMIT H. JUSTICE
SECRETARY

TELEPHONE:

September 12, 1991

Delaware Solid Waste
Authority
1128 South Bradford Street
P.O. Box 455
Dover, Delaware 19903

NCV	PSC	RJP
JWF	LJK	LJD
TEH	VAC	TAT
TEG	RPW	JJD
PBH	HFD	RVS
JJR	DMW	TWT
MSM	JL	WGB
LVM	OFF	SOLID WASTE
	JAW	DELAWARE
	DAF	STATE AUTHORITY
		FILE

RE: Escrow No. 660

Gentlemen:

Enclosed herewith is State of Delaware check number 475763

in the amount of \$35,000.00 which is returning your pre-
viously deposited escrow funds to cover the cost of a

commercial security for Cheswold Recycle Center. I am also

enclosing a copy of our PV form 408366 initiating same.

If you have any questions, please do not hesitate to call.

Very truly yours,

C. L. Hopkins
C.L. Hopkins
Escrow Accountant

CLH
Ecl.
cc:
G. Chappell
File

VENDOR INVOICE NO.	PAYMENT VOUCHER NO.	STATE AGENCY NAME	AMOUNT
ESCROW 660 TOTAL	55-408366	DEPT OF TRANSPORTATION ADMINISTRATION OFFICE PHONE: 302-739-3219 CHK DATE: 09/09/91 TOTAL	35000.00* 35000.00** 35000.00***

DIRECT ALL INQUIRIES RELATING TO THIS CHECK TO THE STATE AGENCY(S) LISTED ABOVE.

PNC National Bank
Wilmington, DE 19899

STATE OF DELAWARE
STATE TREASURER

DATE
09 09 91

PAY TO THE ORDER OF DEL SOLID WASTE AUTH
1128 S BRADFORD ST
PO BOX 455
DOVER DE 19903

475763
475763
AMOUNT
\$*****35,000.00

Payable if desired at
BANK OF DELAWARE 510259761-AA
PNC BANK

Janet C. Fyewicki
STATE TREASURER

475763 031100157 140 364 8

REDIFORM # BK 808

RECEIPT Date Sept 16 1991 No. 8921

Received From State of Delaware

Address Shirley Anne Thomsen 9 1/2 Dollars \$35,000.00

For payment of deposited proceeds covering Cost Commercial Security for Chemical Recy Ctr

ACCOUNT	HOW PAID
AMT. OF ACCOUNT	CASH
AMT. PAID <u>\$35,000.00</u>	CHECK <u>#475763</u>
BALANCE DUE	MONEY ORDER

By Shirley A. Britt



DELAWARE SOLID WASTE AUTHORITY

1128 S. BRADFORD ST., P.O. BOX 455, DOVER, DE 19903-0455
PHONE (302) 739-5361 FAX (302) 739-4287

N. C. VASUKI, P.E., DEE
GENERAL MANAGER

August 15, 1991

Mr. James Coleman
State of Delaware
Department of Transportation
Division of Highways
P.O. Box 778
Dover, DE 19901

Re: Cheswold Recycle Center
Permit No. C218

Dear Mr. Coleman:

Following up our telephone conversation yesterday (August 14, 1991) I would like to inform you that all punch list items on this project have been completed as of Friday, August 9, 1991. Please take whatever steps are necessary to release the certified check we submitted to you as security for the entrance work.

If you have any questions, please call.

Very truly yours,

A handwritten signature in cursive script, appearing to read "David M. Wilhelm".

David M. Wilhelm
Manager of Engineering

DMW/je

cc: P.S. Canzano, P.E., DEE
R.P. Watson, P.E.
T.E. Houska, P.E.

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

CONCEPTUAL CLOSURE PLAN (4.5.1.9.)

Closing Procedures

1. Announce closure of the facility (At Board of Director's Meeting).
2. Submit closure notification to DNREC.
3. Verify permit modification by DNREC to commence closure activities.
4. Publicize closure of the facility:
 - a. Post a sign at entrance
 - b. Advertise in the Delaware State News, Wilmington News Journal, Dover Post, and the Smyrna/Clayton Sun (Publicize two (2) months in advance of closure).
5. Terminate contracts for facility services. Give notice to the following contractors:
 - a. Waste hauling and container rentals
 - b. Portable toilet rental
 - c. Courier service
 - d. Alarm system
 - e. HHW collection
 - f. Bottled water
6. Discontinue waste acceptance
7. Remove any remaining solid waste from area. Transport to the Central Solid Waste Management Center (CSWMC).
8. Remove contractor's and the Authority's equipment from area.
 - a. Container boxes to be removed by hauling contractor.
 - b. Porter toilet (To be taken away by portable toilet contract).
 - c. Signs (except closure announcement).
 - d. Remove HHW collection and transfer station attendant portable buildings.

9. Disconnect utilities.
 - a. Telephone (Verizon)
 - b. Electricity to building (Delaware Electric Cooperative).
10. Clean all areas where solid waste was handled.
11. Mechanically sweep across road to transfer station.
12. Perform visual inspection of site and address any physical hazards. Photograph or video tape the site.
13. Lock all gates.

FACILITY CLOSURE COST

It is estimated that closure costs for the site will not exceed \$1,800, and are identified as follows:

- a. Post a sign at entrance. (\$150)
- b. Advertise closure in newspapers. (\$650)
- c. Mechanical sweeper rental and operation. (\$500)
- d. Utility disconnection. (\$250)
- e. Litter cleanup and general cleaning. (\$250)

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

PROOF OF FINANCIAL RESPONSIBILITY (4.5.1.10.)

FOR CLOSURE

Prior to closure of the facility, the DSWA will allocate the required funds for closure from funds that had already been allocated for its operation. Since the cost for closure is extremely less than operation, funds will always be readily available for closure.

Transfer Station Application Documents

Delaware Solid Waste Authority Cheswold Recycling Center (CRC)

PROOF THAT TRANSFER STATION WILL BE SITED IN ACCORDANCE
WITH DRGSW (4.5.1.11)

The construction/operation of the Cheswold Recycling Center (CRC) was approved by DNREC based on the original permit submission. The information shown below was prepared by DSWA in 2001.

- 10.2.1. Transfer Stations shall be located only in areas where the potential for degradation of the quality of air, land, and water is minimal.

The CRC is located on a large parcel of land and is out of the city limits of Cheswold and Dover. The land was previously used as farm land. The potential for degradation to air, land and water is minimal, since the facility only accepts bagged household waste. The operation of the facility is contained on large paved areas.

- 10.2.2. Transfer Station shall be located adjacent to access roads capable of withstanding anticipated load limits.

The CRC is located on County Road 153 between Dover and Cheswold. County Road 153 is a major two-lane road which intersects with Route 13 approximately one half mile to the east of the facility. Traffic generated by this facility will be predominantly local homeowners and the contribution to traffic flow will be of little consequence.

10.2.3. No new transfer station shall be located in an area such that solid waste would at any time be handled:

a. Within the 100-Year Flood Plan

Attached is a copy of the site topography showing the 100-year flood boundary. The map was created by CABA Associates, Inc. May 1991, by adapting Kent County Flood Boundary and Floodway Map provided by FEMA. The portion of the CRC site where waste is stored is shown outside the limits of the 100-year flood boundary.

b. Within any State or Federal Wetland

Attached is a wetlands delineation report on the CRC site prepared by CABA Associates, Inc. in June 1991. Also see drawing "Transfer Station Entrance and Site Plan" by CABA Associates, Inc., in the drawing section, which indicates the limits of wetlands on the property. All wetlands are shown outside the construction area.

c. So as to conflict with any locally adopted land use plan or zoning requirement

The DSWA is exempt from these requirements based on 7 Delaware Code Chapter §64-6406. It should be noted that during the entire siting, design, and construction periods of the CRC, the DSWA worked with the local communities and government to keep them informed of the work going on at the site.

WETLAND DELINEATION

of the

Delaware Solid Waste Authority Site
Kent County, Delaware

for

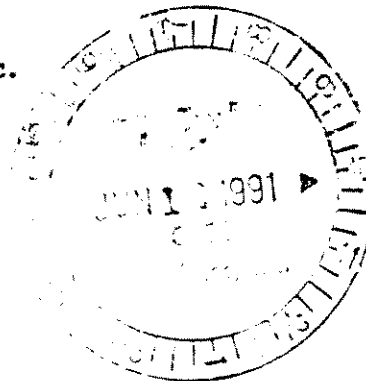
CABE Associates, Inc
Dover, DE 19901

by

Michael F. Green

Environmental Consulting Services, Inc.
100 South Cass St.
Middletown, DE 19709

June 10, 1991



I. LOCATION AND SIZE

The Delaware Solid Waste Authority site (DSWA site), Cheswold, Delaware is located in Kent County, Delaware, at 39° 12' 07" north latitude and 75° 34' 20" west longitude. The site is approximately one-half mile west of the intersection of County Road 153 and U.S. Route 13. The site is bordered on the north by county road 153, on the east by land N/F of Chesapeake Utilities, on the south and on the west by privately owned lands.

The site encompasses 11.38 acres.

II. PROJECT DESCRIPTION

The project is the construction of recycling and transfer station.

III. STUDY METHODOLOGY

Field studies of the site were conducted by Michael F. Green of Environmental Consulting Services, Inc. of Middletown, Delaware. Onsite inspection and sampling was conducted on May 1, 2, 3, 7 and 8, 1991 .

The boundaries of all wetlands were determined by utilizing the Unified Federal Method as adopted on January 10, 1989 by the U. S. Environmental Protection Agency, U. S. Department of the Army, U. S. Fish and Wildlife Service and the U. S. D. A. Soil Conservation Service, for identifying and delineating jurisdictional wetlands (referred to hereafter as the Federal Method). Under the Federal Method, an area is a wetland only when it meets, under normal circumstances, all three of the criteria listed below:

1. A Wetland Hydrology
2. The Presence of Hydric Soils
3. The Predominance of Hydrophytic Vegetation

The boundaries of the wetland were determined by noting the points where at least one of these criteria no longer existed.

Wetland hydrology was evaluated using the criteria as defined by the Federal Method and included the presence or evidence of standing water, the saturated condition of soil samples, and evidence of drainage patterns. Auger holes in excess of those needed for soil type identification were used to characterize the hydrology.

Since most of the site was utilized as farmland for more than 20 years, and was last farmed in 1989, the time, reason for, and relative permanence of modifications to hydrology (open ditches) was taken into consideration in determining if "normal circumstances" exist.

Soils determinations were made using field collected samples and the U. S. D. A. Soil Conservation Service (SCS) Soil Survey, Kent County, Delaware, sheet #13. The field collected samples were obtained utilizing a 3 1/2 inch auger sampler to take an appropriate number of samples at various depths from the top of the "A" horizon, along transects and selected points throughout the site. Soil color was determined using Munsell Soil Color Charts; texture was determined by the feel method. Wetland soils were determined in accordance with criteria as defined in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands and those identified on the SCS soil survey which appear on the U. S. Army Corps of Engineers' Hydric Soils List.

Vegetation was identified and the plant species indicator status was assigned as listed in the Fish and Wildlife Service, Biological Report 88(26.1), May 1988, NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1).

Indicator Categories:

Obligate Wetland (OBL)
Occur almost always (estimated probability >99%) under natural conditions in wetlands.

Facultative Wetland (FACW)
Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in nonwetlands.

Facultative (FAC)
Equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%).

Facultative Upland (FACU)
Usually occur in nonwetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).

Obligate Upland (UPL)
Occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the region specified.

Not Listed (NL)
If a species does not occur in wetlands in any region, it is not on the National List.

+ Following an indicator status denotes that the species generally has a greater estimated probability of occurring in wetlands than species having the general indicator status.

- Following an indicator status denotes that the species generally has a lesser estimated probability of occurring in wetlands than species having the general indicator status.

? Following an indicator denotes a tentative assignment based on the botanical literature and not confirmed by regional review.

No Indicator (NI)
Indicates species for which insufficient information is available to determine and indicator status.

IV. FINDINGS

A. General

The DSWA site is predominantly level to slightly rolling fallow agricultural land with small wooded areas along the eastern and southern boundaries, and a small wooded hedgerow along part of the northwest boundary (Figure 2). The land has been farmed for more than 20 years (appears as farmland in the Kent County Soil Survey that was issued in April, 1971).

Aerial photography of the site was examined at the Soil Conservation Service, Dover, DE office on May 7, 1991. The following photographs and observations were made:

- 1977 The site is all farmland except the northeast corner—trees occur in this area; the stand appears to be less dense than today. There is no evidence of wetland hydrology anywhere on the site; even low spots are dry.
- 1982 The northwest corner, near County Road 153, is wet. Also, back of field (southeast corner) is wet.
- 1989 The southeast corner and area across part of the south end of the site appear wet.

Open ditches occur on or immediately adjacent to the northwest corner and the southern property boundary. The ditch along the southern end is evident on the soil survey. The trees along the ditch near the northwest corner are estimated to be at least 20 years old which indicates this drainageway has been in place for many years, certainly prior to 1985.

Since the ditches were installed prior to 1985 as part of a normal farming practice to improve the productivity of the farmland it was determined that normal circumstances exist onsite. Hence, data sheets answer "yes" to the question "Do normal circumstances exist at the plant community level?" and "no" to "Has the vegetation, soils and/or hydrology been significantly disturbed?".

The soil survey for this area maps the following soils for the DSWA site: Sassafras sandy loam and Fallsington loam (Figure 3). Of these the Fallsington appears on the U. S. Army Corps of Engineers (ACOE) Hydric Soils List.

The U. S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map for this area (Figure 1) indicates an area of PF01A wetland adjacent to the southeast property corner. A portion of this may be onsite. Regardless, the southeast portion of the DSWA site is jurisdictional wetland and was delineated as such (Figure 2).

B. DETAILED

1. Upland.

The upland portion of the DSWA site consists of fallow agricultural land and hardwood deciduous forest (Figure 2). The agricultural land supported a crop of soybeans during the 1989 growing season, but lay fallow during 1990.

Agricultural Land

The following excerpt is taken from the U.S. Army Corps of Engineers' RGL of 26 SEPT 90:

The primary consideration in determining whether a disturbed area qualifies as a Section 404 wetland under "normal circumstances" involves an evaluation of the extent and relative permanence of the physical alteration of wetlands hydrology and hydrophytic vegetation. In addition, consideration is given to the purpose and cause of the physical alterations to hydrology and vegetation. For example, we have always maintained that areas where individuals have destroyed hydrophytic vegetation in an attempt to eliminate the regulatory requirements of Section 404 remain part of the overall aquatic system, and are subject to regulation under Section 404. In such a case, where the Corps can determine or reasonably infer that the purpose of the physical disturbance to hydrophytic vegetation was to avoid regulation, the Corps will continue to assert Section 404 jurisdiction.

"Prior converted cropland" is defined by the SCS Section 512.13 of the National Food Security Act Manual, August 1988) as wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season. Prior converted cropland generally does not include pothole or playa wetlands. In addition, wetlands that are seasonally flooded or ponded for 15 or more consecutive days during the growing season are not considered prior converted cropland. In light of this, a portion of the site which is underlain by soil which has hydric characteristics is Prior converted cropland.

Field evidence of wetland hydrology, observations of vegetation and photographic evidence indicate that most of the farmland area is not inundated for 14 consecutive days. With the extent and permanent nature of the modification to the hydrology (ditches) and the time (prior to 23 DEC 85) and reason (crop production) for the modification, this area is considered to be Prior Converted Cropland (PC).

The soil in the upland portion of the site is dominated by Sassafras sandy loam with some areas of Fallsington (Figure 3). The soil is high chroma loam or sandy loam which lacks hydric characteristics (data sheets T1S1, T1S2, T2S1, T2S2) and soil with hydric characteristics (data sheets T1S3 and T3S2). The areas in which soil exhibits hydric characteristics is dominated by non-hydrophytes and showed no evidence of wetland hydrology—depth to water table was greater than 18 inches during a wet spring. At T2S3, after 24 hours, water in the auger hole was at 19" (May 3).

The dominant vegetation includes Field Mustard, Field Pansy, Mouse Eared Chickweed and Sweet Vernal Grass. A complete list of the vegetation identified at the site can be found in Table 1.

Wooded Area

The dominant vegetation in the forested area includes Black Cherry and Japanese Honeysuckle. The soil is well drained loam or sandy loam with a matrix chroma greater than or equal to 4 to a depth of 40 inches.

During the field investigations no standing water or other positive signs of wetland hydrology were observed in the upland portions of the site.

3. Wetland

Jurisdictional wetlands occur in two areas of the site (Figure 2). These areas are visually observed to be lower in elevation than the surrounding land. Each of these low areas exhibited strong evidence of positive wetland hydrology in the form of ponded water, saturated soil and wet appearance in aerial photographs for 1982 and 1989. In addition there was a readily observed change in vegetation.

The soil in the wetland has a matrix chroma less than or equal to 2 and is prominently mottled near the surface (data sheet for T3S1).

The dominant vegetation in the wetlands areas includes Fowl Meadow grass, Swamp Buttercup and Foxtail (Alopecurus sp.).

A complete list of vegetation identified onsite can be found in Table 1.

The soil in the wetland portion is dominated by the Fallsington loam (Figure 3). The Fallsington soil appears on the ACOE list of hydric soils.

4. Wetlands Line

The wetland lines follow an obvious change in vegetation and a change in elevation, which, although not great, is nevertheless readily observed.

The wetlands line was surveyed by CAGE Engineering, Inc. of Dover, Delaware.

V. REFERENCES

Federal Interagency Committee for Wetland Delineation, 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U. S. Army Corps of Engineers, U. S. Environmental Protection Agency, U. S. Fish and Wildlife Service, and USDA Soil Conservation Service, Washington, D.C. Cooperative Technical publication. 107pp. plus appendix.

Reed, P. B., Jr., 1988. National List of Plant Species that Occur in Wetlands: Northeast (Region 1). U.S. Fish Wildl. Serv. Biol. Rept. 88(26.1). May 1988. 111pp.

United States Army Corps of Engineers. 1977. Wetland Plants of the Eastern United States. NADP 200-1-1 and update. 317+ pp.

U.S.D.A. Soil Conservation Service, Soil Survey of Kent County, Delaware sheet 13.

A P P E N D I X

Table 1. Summary of vegetation of the DSWA site

Figure 1. The DSWA site on the National Wetlands Inventory Map, Dover, Delaware, Quadrangle Topographic 7.5 minute series.

Figure 2. The DSWA site Wetland Delineation.

Figure 3. The DSWA site on Soil Conservation Service, Kent County, Delaware, Soil Survey Sheet 13.

Photos DSWA Site. Aerial photograph.
1 & 2

Photo 3. DSWA Site. View to the northeast along northern property boundary. Tree, center foreground, is near the northwest property corner.

Photo 4. DSWA Site. View to the east showing small wooded area (center) front portion of follow field, and tree line (right, center) along eastern property boundary.

Photo 5. DSWA Site. Looking to the southwest; a portion of wetland area "A" is at right, center. Trees are on bank of ditch/stream along western property boundary.

Photo 6. DSWA Site. View to the northwest across wetland area "B". Trees, upper right, are along eastern boundary.

Photo 7. DSWA Site. The break or change in vegetation is evident. Wetland area "B" is left, upland to the right. Pink wire flags mark wetland boundary. Yellow flowers are those of Branica rapa.

Photo 8. DSWA Site. Viola kitaibeliana and Cerastium vulgatum were prevalent in some parts of the field where soil had hydric characteristics. This is a view to the southeast, towards T3S2.

Photo 9. DSWA Site. Wetland area "B" looking to the northwest.

Photo 10. DSWA Site. View to the southwest from near T1S2, downslope to a portion of wetland area "A".

Data Forms T1S1, T1S2, T1S3, T2S1, T2S2, T2S3, T3S1, T3S2, and Wooded area northeast corner

Table 1. Summary of vegetation of the DSWA site

Classifications	
OBL	= Obligate Hydrophyte
FACW	= Facultative Wetland
FAC	= Facultative
FACU	= Facultative Upland
UPL	= Upland
DRA	= Species present after an inundation event
NL	= Not Listed
NI	= Not Indicated
+	= Slightly wetter than indicator status given
-	= Slightly drier than indicator status given
[]	= Assumed

Upland Trees/Shrubs		NWI/USFWS
Common Name	Scientific Name	Class
Red Maple	<u>Acer rubrum</u>	FAC
Sweet Pepper Bush	<u>Clethra alnifolia</u>	FAC+
American Beech	<u>Fagus grandifolia</u>	FACU
Sweetgum	<u>Liquidambar styraciflua</u>	FAC
Tulip Poplar	<u>Liriodendron tulipifera</u>	FACU
Black Cherry	<u>Prunus serotina</u>	FACU
White Oak	<u>Quercus alba</u>	FACU
Willow Oak	<u>Quercus phellos</u>	FAC
Northern Red Oak	<u>Quercus rubra</u>	FACU
Staghorn Sumac	<u>Rhus typhina</u>	NL
Northern Dewberry	<u>Rubus (flagellaris)</u>	NL
Sassafras	<u>Sassafras albidum</u>	FACU
Southern Arrow-wood	<u>Viburnum dentatum</u>	FAC

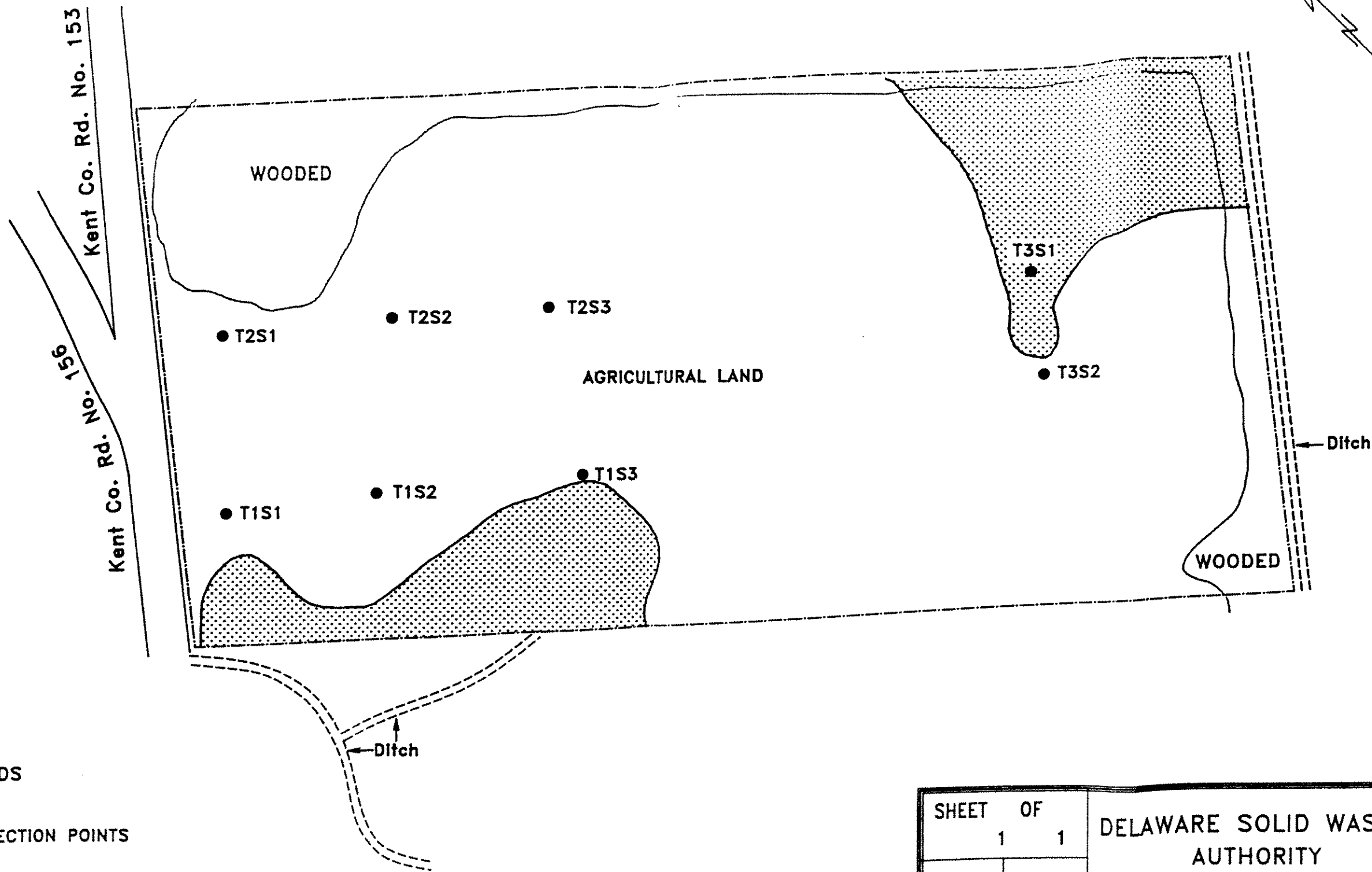
(Table 1 - continued)

Upland Herbaceous/Ground Covers		
Common Name	Scientific Name	NWI/USFWS Class
Field Garlic	<u>Allium vineale</u>	FACU-
Sweet Vernal Grass	<u>Anthoxanthum odoratum</u>	FACU
Field Mustard	<u>Brassica rapa</u>	NL
Mouse Ear Chickweed	<u>Cerastium vulgatum</u>	FACU-
St. Johnswort	<u>Hypericum sp.</u>	[FACW]
Henbit	<u>Lamium Amplexicaule</u>	NL
Everlasting Pea	<u>Lathyrus latifolius</u>	NL
Poor Man's Pepper	<u>Lepidium virginicum</u>	FACU-
Grass		
Blue Toadflax	<u>Linaria canadensis</u>	NL
Japanese Honeysuckle	<u>Lonicera japonica</u>	FAC-
Yellow Wood Sorrel	<u>Oxalis europaea</u>	NL
Pokeweed	<u>Phytolacca americanum</u>	FACU+
English Plantain	<u>Plantago lanceolata</u>	NL
Multiflora Rose	<u>Rosa multiflora</u>	FACU
Field Sorrel	<u>Rumex acetosella</u>	FACU
Common Greenbrier	<u>Smilax rotundifolia</u>	FAC
Common Dandelion	<u>Taraxacum officinale</u>	FACU-
Poison Ivy	<u>Toxicodendron radicans</u>	FAC
Red Clover	<u>Trifolium pratense</u>	FACU-
Winter Wheat	<u>Triticum aestivum</u>	NL
Corn Salad	<u>Valerianella olitoria</u>	NL
Field Pansey	<u>Viola kitaibeliana</u>	NL
Early Blue Violot	<u>Viola palmata</u>	NL

Wetland Trees and Shrubs		
Common Name	Scientific Name	NWI/USFWS Class
Red Maple	<u>Acer rubrum</u>	FAC
Sweet Pepper Bush	<u>Clethra alnifolia</u>	FAC+
Sweetgum	<u>Liquidambar styraciflua</u>	FAC
Sweetbay	<u>Magnolia virginiana</u>	FACW+

Wetland Herbaceous/Ground Covers		NWI/USFWS
Common Name	Scientific Name	Class
Foxtail	<u>Alopecurus sp.</u>	[FACW]
Sweet Vernal Grass	<u>Anthoxanthum odoratum</u>	FACU
Sedge	<u>Carex [stipata]</u>	[OBL]
Fowl Meadow Grass	<u>Glyceria striata</u>	OBL
Soft Rush	<u>Juncus effusus</u>	FACW+
Smaller Forget-me-not	<u>Myosotis laxa</u>	OBL
Smartweed*	<u>Polygonum sp.*</u>	(FACW)
Swamp Buttercup	<u>Ranunculus septentrionalis</u>	OBL
Field Sorrel	<u>Rumex acetosella</u>	FACU
Common Greenbrier	<u>Smilax rotundifolia</u>	FAC

Note: Some vegetation listed may not have been located at a specific data collection point, however, all species were observed on the site.



WETLANDS

TxSx DATA COLLECTION POINTS

SHEET 1 OF 1		DELAWARE SOLID WASTE AUTHORITY CHESWOLD RECYCLE CENTER CHESWOLD DE	ENVIRONMENTAL CONSULTING SERVICES Inc. 100 SOUTH CASS ST MIDDLETOWN DE 19709
DATE			
5/23/91			
SCALE			

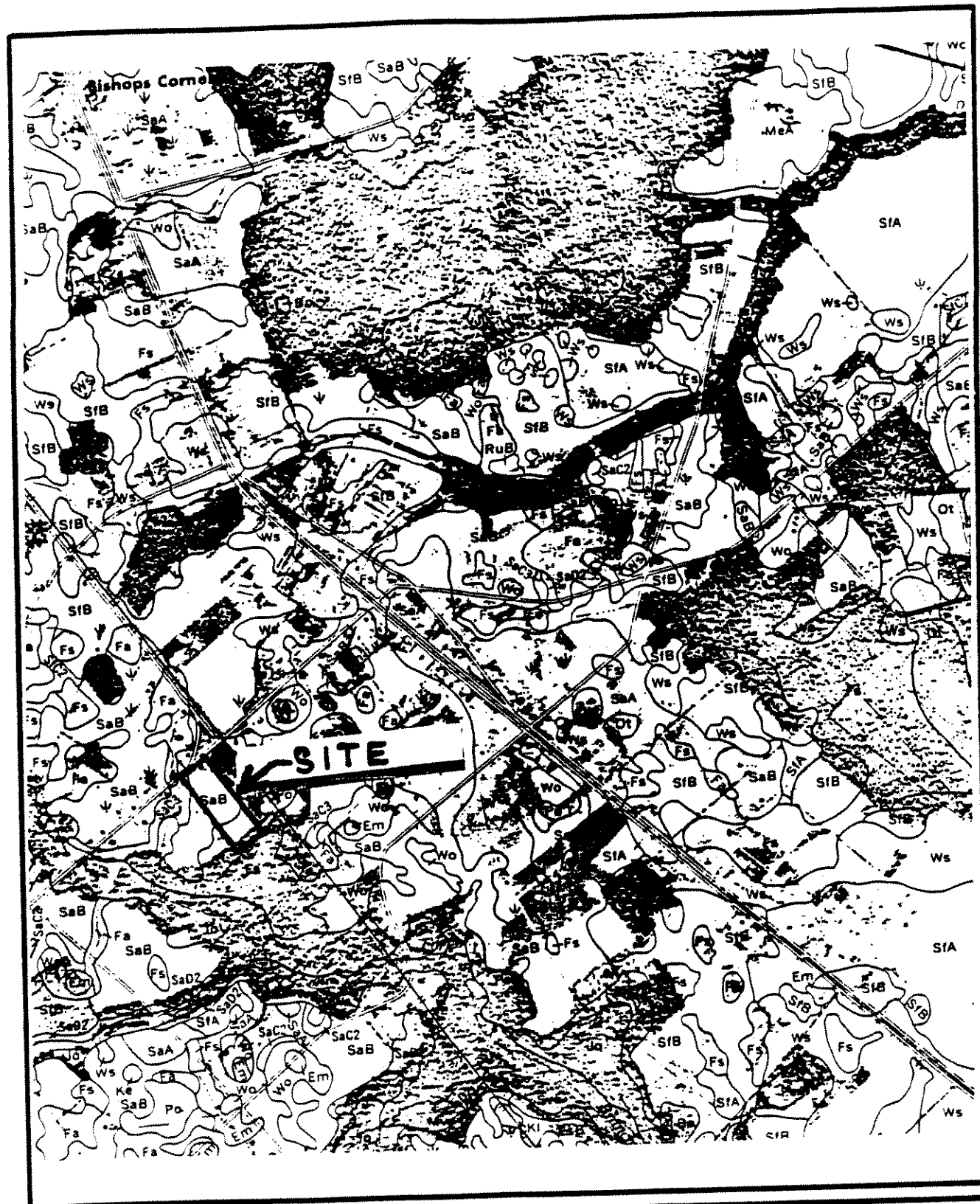


Figure 3. The DSWA site on Soil Conservation Service, Kent County, Delaware, Soil Survey Sheet 13.



Photo 1. DSWA Site. Aerial photograph.



Photo 2. DSWA Site. Aerial photograph.



Photo 3. DSWA Site. View to the northeast along northern property boundary. Tree, center foreground, is near the northwest property corner.



Photo 4. DSWA Site. View to the east showing small wooded area (center) front portion of follow field, and tree line (right, center) along eastern property boundary.

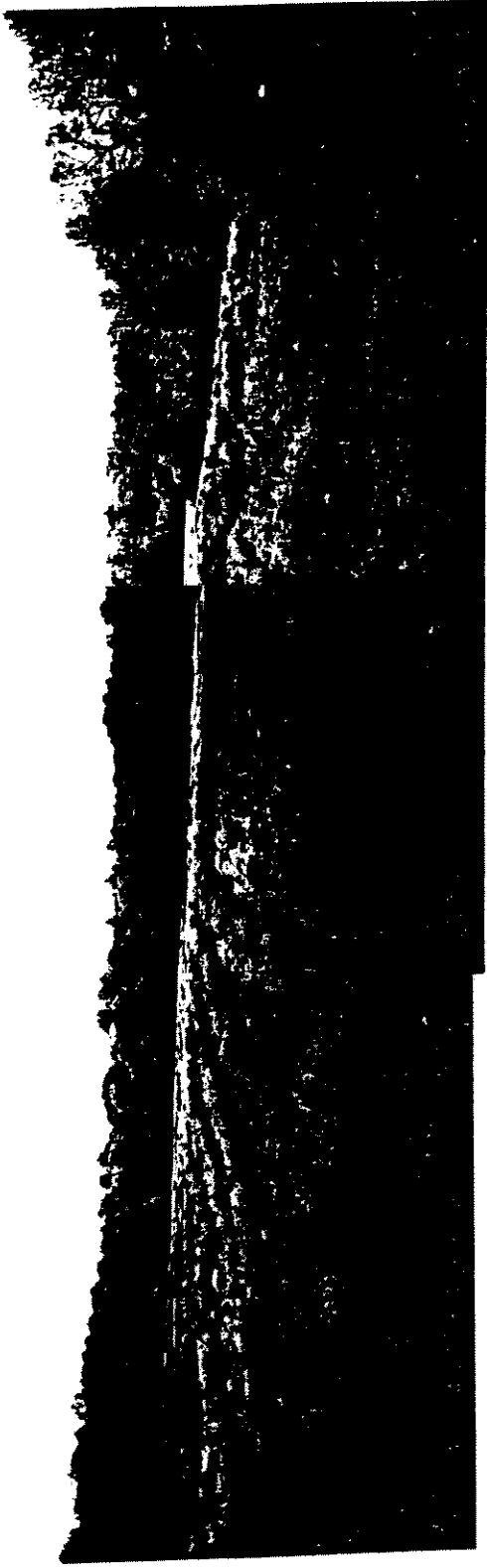


Photo 5. DSWA Site. Looking to the southwest; a portion of wetland area "A" is at right, center. Trees are on bank of ditch/stream along western property boundary.



Photo 6. DSWA Site. View to the northwest across wetland area "B". Trees, upper right, are along eastern boundary.



Photo 7. DSWA Site. The break or change in vegetation is evident. Wetland area "B" is left, upland to the right. Pink wire flags mark wetland boundary. Yellow flowers are those of Branica rapa.



Photo 8. DSWA Site. Viola kitaebeliana and Cerastium vulgatum were prevalent in some parts of the field where soil had hydric characteristics. This is a view to the southeast, towards T3S2.

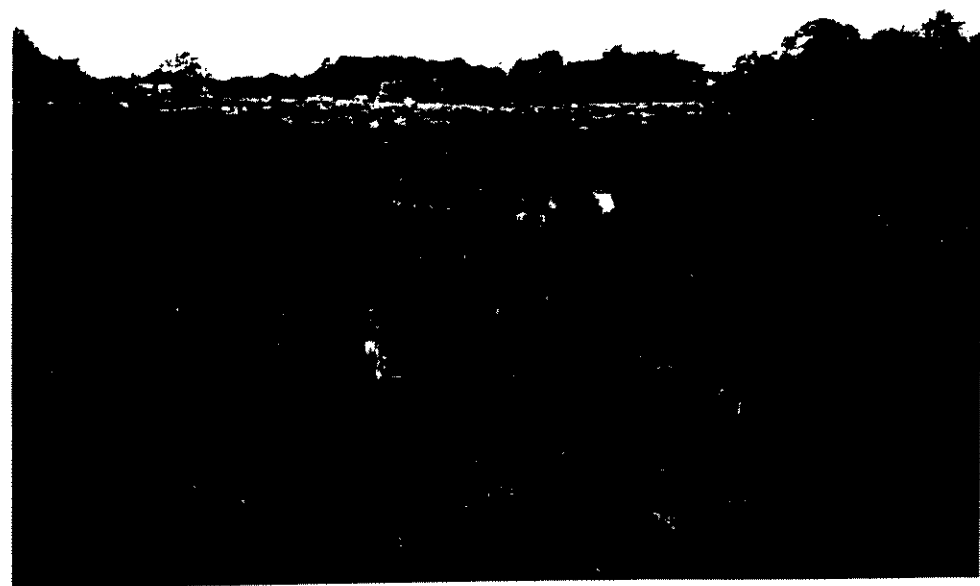


Photo 9. DSWA Site. Wetland area "B" looking to the northwest.



Photo 10. DSWA Site. View to the southwest from near T1S2, downslope to a portion of wetland area "A".

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-01-91.
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T1S1
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
Yes ☒ No ☐ (If no, explain on back)
Has the vegetation, soils, and/or hydrology been significantly disturbed?
Yes ☐ No ☒ (If yes, explain on back)

VEGETATION

Dominant Plant Species			Indicator			Dominant Plant Species			Indicator		
			Status	Stratum					Status	Stratum	
1.	<u>Anthoxanthum odoratum</u>		<u>FACU</u>	<u>H</u>		11.	<u>Other species observed, but NOT</u>				
2.	<u>Viola kitaibeliana</u>		<u>NL</u>	<u>H</u>		12.	<u>dominant:</u>				
3.	<u>Allium vineale</u>		<u>FACU-</u>	<u>H</u>		13.	<u>Plantago lanceolata</u>		<u>NL</u>	<u>H</u>	
4.						14.	<u>Trifolium pratense</u>		<u>FACU-</u>	<u>H</u>	
5.						15.	<u>Triticum aestivum</u>		<u>NL</u>	<u>H</u>	
6.						16.					
7.						17.					
8.						18.					
9.						19.					
10.						20.					

Percent of dominant species that are OBL, FACW, and/or FAC 0.
Is the hydrophytic vegetation criterion met? Yes ☐ No ☒
Rationale: There are no hydrophytes.

SOILS

Series/phase: Undetermined. Subgroup:² _____
Is the soil on the hydric soils list? Yes ☐ No ☐ Undetermined ☒
Is the soil a Histosol? Yes ☐ No ☒ Histic epipedon present? Yes ☐ No ☒
Is the soil: Mottled? Yes ☒ No ☐ Gleyed? Yes ☐ No ☒
Matrix Color: 10YR 5/3, 6/3, 6/6 Mottle Colors: 7.5YR 5/8
Other hydric soil indicators: _____
Is the hydric soil criterion met? Yes ☐ No ☒
Rationale: Matrix chroma is greater than 2 to a depth of 24".

HYDROLOGY

Is the ground surface inundated? Yes ☐ No ☒ Surface water depth: _____
Is the soil saturated? Yes ☐ No ☒
Depth to free-standing water in pit/soil probe hole: Greater than 30".
List other field evidence of surface inundation or soil saturation.
None.
Is the wetland hydrology criterion met? Yes ☐ No ☒
Rationale: _____

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes ☐ No ☒
Rationale for jurisdictional decision: None of the criteria are met. Note: this point is upslope from northwest property corner in which saturated, low chroma soil, supports a

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.

² Classification according to "Soil Taxonomy."

prevalence of Juncus effusus.

SOIL SURVEY

Client/Site - CAFE/DE Solid Waste Authority	Determined by: MF Green
Soil type - Not determined *	Date - 05-01-91.
Classification -	
Location - TISI	
N. veg. (or crop) - Herbaceous	Climate
Drainage -	Ground water - approx. 30".
Root distrib. -	Soil saturated at 28".

Hori- zon	Depth	Color	Texture	Consistence	Mottled	Mottle color
		Circle D(ry) or M(oist or W(et)				
	0-5"	D M 10YR 4/2 W	Sandy Loam	Friable		
	5-12"	D M 10YR 5/3 W	Sandy Loam	Friable	Few Fine Distinct	7.5YR 5/8
	12-18"	D M 10YR 6/3 W	Sandy Loam	Friable	Few Fine Distinct	7.5YR 5/8
	18-24"	D M 10YR 6/6 W	Loam	Friable	Few Fine Distinct	10YR 6/2 & 10YR 5/8
	24-28"	D M 10YR 6/2 W	Loam	Friable	Few Fine Distinct	7.5YR 5/8
	28-34"	D M 10YR 6/3 W	Sand	Friable	Few Coarse Prominent	5YR 4/6
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:
* Soil survey maps this as Sassafras.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-01-91.
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T1S2
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
Yes X No (If no, explain on back)
Has the vegetation, soils, and/or hydrology been significantly disturbed?
Yes No X (If yes, explain on back)

VEGETATION

Dominant Plant Species	Indicator Status	Stratum	Dominant Plant Species	Indicator Status	Stratum
1. <u>Viola kitaibeliana</u>	<u>NL</u>	<u>H</u>	11. <u> </u>	<u> </u>	<u> </u>
2. <u>Brassica rapa</u>	<u>NL</u>	<u>H</u>	12. <u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	13. <u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	14. <u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	15. <u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	16. <u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	17. <u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	18. <u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	19. <u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	20. <u> </u>	<u> </u>	<u> </u>

Percent of dominant species that are OBL, FACW, and/or FAC 0.
Is the hydrophytic vegetation criterion met? Yes No X
Rationale:

SOILS

Series/phase: Sassafras sandy loam Subgroup:² Typic Hapludults
Is the soil on the hydric soils list? Yes No X Undetermined
Is the soil a Histosol? Yes No X Histic epipedon present? Yes No X
Is the soil: Mottled? Yes No X Gleyed? Yes No X
Matrix Color: 10YR 4/2, 5/4 Mottle Colors:
Other hydric soil indicators: None.
Is the hydric soil criterion met? Yes No X
Rationale: No hydric characteristics.

HYDROLOGY

Is the ground surface inundated? Yes No X Surface water depth:
Is the soil saturated? Yes No X
Depth to free-standing water in pit/soil probe hole: Greater than 30".
List other field evidence of surface inundation or soil saturation.
None.
Is the wetland hydrology criterion met? Yes No X
Rationale: No evidence.

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes No X
Rationale for jurisdictional decision: None of the criteria are met.

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.

² Classification according to "Soil Taxonomy."

SOIL SURVEY

Client/Site - CBE/DE Solid Waste Authority	Determined by: MF Green
Soil type - Sassafras sandy loam	Date - 05-01-91.
Classification -	
Location - T1S2	
N. veg. (or crop) - Herbaceous	Climate
Drainage -	Ground water - Greater than 30".
Root distrib. -	

Hori- zon	Depth	Color	Texture	Consistence	Mottled	Mottle color
		Circle D(ry) or M(oist or W(et)				
	0-10"	D M 10YR 4/2 W	Sandy Loam	Friable		
	10-22"	D M 10YR 5/4 W	Sandy Loam	Friable		
	22-30"	D M 7.5YR 4/6 W	Loam	Friable		
	30-35"	D M 10YR 6/6 W	Loam	Friable	Few Medium Distinct	7.5YR 5/8
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-01-91
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T1S3
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
Yes X No (If no, explain on back)
Has the vegetation, soils, and/or hydrology been significantly disturbed?
Yes No X (If yes, explain on back)

VEGETATION

Dominant Plant Species	Indicator Status	Stratum	Dominant Plant Species	Indicator Status	Stratum
1. <u>Brassica rapa</u>	<u>NL</u>	<u>H</u>	11. <u> </u>	<u> </u>	<u> </u>
2. <u>Viola kitaibeliana</u>	<u>NL</u>	<u>H</u>	12. <u> </u>	<u> </u>	<u> </u>
3. <u>Triticum aestivum</u>	<u>NL</u>	<u>H</u>	13. <u> </u>	<u> </u>	<u> </u>
4. <u>Allium vineale</u>	<u>FACU-</u>	<u>H</u>	14. <u> </u>	<u> </u>	<u> </u>
5. <u>cerastium vulgatum</u>	<u>NL</u>	<u>H</u>	15. <u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	16. <u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	17. <u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	18. <u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	19. <u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	20. <u> </u>	<u> </u>	<u> </u>

Percent of dominant species that are OBL, FACW, and/or FAC 0.
Is the hydrophytic vegetation criterion met? Yes No X
Rationale: No hydrophytes.

SOILS

Series/phase: Undetermined. Subgroup:²
Is the soil on the hydric soils list? Yes No Undetermined X
Is the soil a Histosol? Yes No X Histic epipedon present? Yes No X
Is the soil: Mottled? Yes X No Gleyed? Yes No X
Matrix Color: 10YR 3/2, 6/3 Mottle Colors: 7.5YR 5/6
Other hydric soil indicators:
Is the hydric soil criterion met? Yes No
Rationale: Soil has chroma of 3 from 12-30" depth

HYDROLOGY

Is the ground surface inundated? Yes No X Surface water depth:
Is the soil saturated? Yes No X
Depth to free-standing water in pit/soil probe hole: 18"
List other field evidence of surface inundation or soil saturation:

Is the wetland hydrology criterion met? Yes No X
Rationale: Area downslope to depression. There is no evidence in aerial photographs that this area is wet/hydrophytes are not present.

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes No X
Rationale for jurisdictional decision: No hydrophytes, non-hydric soil, lack of hydrology

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community

Assessment Procedure.

² Classification according to "Soil Taxonomy."

SOIL SURVEY

Client/Site - CAFE/LE Solid Waste Authority	Determined by: MF Green
Soil type - Not determined	Date - 05-01-91.
Classification -	
Location - T1S3	
N. veg. (or crop) - Herbaceous	Climate
Drainage -	Ground water - 18".
Root distrib. -	Soil saturated at 18".

Hori- zon	Depth	Color Circle D(ry) or M(oist or W(et)	Texture	Consistence	Mottled	Mottle color
	0-8"	D M 10YR 3/2 W	Sandy Loam	Friable		
	8-12"	D M 10YR 3/2 W	Sandy Loam	Friable	Few Fine Distinct	7.5YR 3/4
	12-18"	D M 10YR 6/3 W	Loamy Sand	Friable	Few Fine Distinct	7.5YR 5/6
	18-30"	D M 10YR 6/3 W	Loamy Sand	Friable	Common Medium Distinct	7.5YR 5/6
	30-35"	D M 10YR 7/1 W	Loamy Sand	Friable	Common Coarse Distinct	10YR 5/8
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:

This area slopes gently to the west toward a small depression with some ponded water where *Agrostis (alba)* is dominant. Drainage of wetland area that downslopes to the west, has apparently lowered the water table here. This area may be prior converted cropland (PC). Vegetation is non-hydrophytic.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-02-91.
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T2S1
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?

Yes ☒ No ☐ (If no, explain on back)

Has the vegetation, soils, and/or hydrology been significantly disturbed?

Yes ☐ No ☒ (If yes, explain on back)

VEGETATION

Indicator			Indicator		
Dominant Plant Species	Status	Stratum	Dominant Plant Species	Status	Stratum
1. <u>Brassica rapa</u>	<u>NL</u>	<u>H</u>	11. <u>Also present but NOT dominant;</u>		
2. <u>Plantago lanceolata</u>	<u>NL</u>	<u>H</u>	12. <u>Cerastium vulgatum</u>	<u>FACU-</u>	<u>H</u>
3. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>H</u>	13. <u>Trifolium pratense</u>	<u>FACU-</u>	<u>H</u>
4. <u>Allium vineale</u>	<u>FACU-</u>	<u>H</u>	14. <u>Lepidium virginicum</u>	<u>FACU-</u>	<u>H</u>
5. _____	_____	_____	15. _____	_____	_____
6. _____	_____	_____	16. _____	_____	_____
7. _____	_____	_____	17. _____	_____	_____
8. _____	_____	_____	18. _____	_____	_____
9. _____	_____	_____	19. _____	_____	_____
10. _____	_____	_____	20. _____	_____	_____

Percent of dominant species that are OBL, FACW, and/or FAC 0.

Is the hydrophytic vegetation criterion met? Yes ☐ No ☒

Rationale: No hydrophytes present.

SOILS

Series/phase: Sassafras sandy loam Subgroup:² Typic Hapludults
Is the soil on the hydric soils list? Yes ☐ No ☒ Undetermined _____
Is the soil a Histosol? Yes ☐ No ☒ Histic epipedon present? Yes ☐ No ☒
Is the soil mottled? Yes ☐ No ☒ Gleyed? Yes ☐ No ☒
Matrix Color: 10YR 4/3, 5/8 Mottle Colors: _____
Other hydric soil indicators: None.
Is the hydric soil criterion met? Yes ☐ No ☒
Rationale: Soil is high chroma; lacks mottles.

HYDROLOGY

Is the ground surface inundated? Yes ☐ No ☒ Surface water depth: _____
Is the soil saturated? Yes ☐ No ☒
Depth to free-standing water in pit/soil probe hole: Greater than 30".
List other field evidence of surface inundation or soil saturation.

Is the wetland hydrology criterion met? Yes ☐ No ☒

Rationale: No evidence of wetland hydrology.

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes ☐ No ☒

Rationale for jurisdictional decision: None of the criteria are met.

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.

² Classification according to "Soil Taxonomy."

SOIL SURVEY

Client/Site - CAFE/DE Solid Waste Authority Determined by: MF Green
 Soil type - Sassafras sandy loam Date - 05-02-91.
 Classification -
 Location - T2S1
 N. veg. (or crop) - Herbaceous Climate
 Drainage - Ground water - Greater than 30".
 Root distrib. -

Hori- zon	Depth	Color	Texture	Consistence	Mottled	Mottle color
		Circle D(ry) or M(oist or W(et)				
	0-5"	D M 10YR 4/3 W	Loam	Friable		
	5-14"	D M 10YR 5/8 W	Heavy Loam	Friable		
	14-24"	D M 10YR 5/6 W	Loam	Friable		
	24-32"	D M 10YR 6/3 W	Sandy Loam	Friable	Variegated	w/10YR 6/1 & 10YR 5/8
	32-40"	D M 10YR 6/4 W	Friable			
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:

Hit gravel at 40".

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-02-91.
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T2S2
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?

Yes ☒ No ☐ (If no, explain on back)

Has the vegetation, soils, and/or hydrology been significantly disturbed?

Yes ☐ No ☒ (If yes, explain on back)

VEGETATION

Dominant Plant Species	Indicator Status	Stratum	Dominant Plant Species	Indicator Status	Stratum
1. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>H</u>	11. _____	_____	_____
2. <u>Brassica rapa</u>	<u>NL</u>	<u>H</u>	12. _____	_____	_____
3. <u>Trifolium pratense</u>	<u>FACU</u>	<u>H</u>	13. _____	_____	_____
4. <u>Viola kitaibeliana</u>	<u>NL</u>	<u>H</u>	14. _____	_____	_____
5. <u>Allium vineale</u>	<u>FACU</u>	<u>H</u>	15. _____	_____	_____
6. _____	_____	_____	16. _____	_____	_____
7. _____	_____	_____	17. _____	_____	_____
8. _____	_____	_____	18. _____	_____	_____
9. _____	_____	_____	19. _____	_____	_____
10. _____	_____	_____	20. _____	_____	_____

Percent of dominant species that are OBL, FACW, and/or FAC 0.

Is the hydrophytic vegetation criterion met? Yes ☐ No ☒

Rationale: _____

SOILS

Series/phase: Undetermined Subgroup:² _____

Is the soil on the hydric soils list? Yes ☐ No ☐ Undetermined ☒

Is the soil a Histosol? Yes ☐ No ☒ Histic epipedon present? Yes ☐ No ☒

Is the soil: Mottled? Yes ☐ No ☒ Gleyed? Yes ☐ No ☒

Matrix Color: 10YR 3/3, 10YR 5/3 Mottle Colors: _____

Other hydric soil indicators: _____

Is the hydric soil criterion met? Yes ☐ No ☒

Rationale: Matrix chroma is 3 up to 38" of depth; no mottles near surface.

HYDROLOGY

Is the ground surface inundated? Yes ☐ No ☒ Surface water depth: _____

Is the soil saturated? Yes ☐ No ☒

Depth to free-standing water in pit/soil probe hole: Greater than 30".

List other field evidence of surface inundation or soil saturation. _____

Is the wetland hydrology criterion met? Yes ☐ No ☒

Rationale: No evidence of wetland hydrology.

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes ☐ No ☒

Rationale for jurisdictional decision: None of the criteria are met.

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.

² Classification according to "Soil Taxonomy."

Client/Site - CWF/DE Solid Waste Authority	Determined by: MF Green
Soil type - Not determined	Date - 05-02-91.
Classification -	
Location - T2S2	
N. veg. (or crop) - Herbaceous	Climate
Drainage -	Ground water - Greater than 30".
Root distrib. -	

Hori- zon	Depth	Color	Texture	Consistence	Mottled	Mottle colo
		Circle D(ry) or M(oist or W(et)				
	0-4"	D M 10YR 3/3 W	Loam	Friable		
	4-23"	D M 10YR 5/3 W	Loam	Friable		
	23-29"	D M 10YR 5/3 W	Loam	Friable	Slightly variegated w/	10YR 6/3
	29-38"	D M 10YR 6/3 W	Heavy Loam	Friable	Few Medium Distinct	10YR 6/1 & 7.5YR 5/8
	38-42"	D M 10YR 6/1 W	Heavy Loam	Slightly Plastic	Common Medium Prominent	7.5YR 5/8
	38-42"	D M 10YR 6/1 W	Heavy Loam	Slightly	Few Coarse Prominent	7.5YR 5/8
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:

Note: 29-38"; and 38-42" are mixed profiles.

*Some gravel at 23-29". Soil at 8-20" or so is more moist than at
previous point (T2S1).

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-02-91.
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T2S3
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
Yes X No (If no, explain on back)
Has the vegetation, soils, and/or hydrology been significantly disturbed?
Yes No X (If yes, explain on back)

VEGETATION

Indicator			Indicator		
Dominant Plant Species	Status	Stratum	Dominant Plant Species	Status	Stratum
1. <u>Cerastium vulgatum</u>	<u>FACU-</u>	<u>H</u>	11. <u>Also present, but NOT dominant:</u>		
2. <u>Allium vineale</u>	<u>FACU-</u>	<u>H</u>	12. <u>Brassica rapa</u>	<u>NL</u>	<u>H</u>
3. <u> </u>	<u> </u>	<u> </u>	13. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>H</u>
4. <u> </u>	<u> </u>	<u> </u>	14. <u>Taraxacum officinale</u>	<u>FACU-</u>	<u>H</u>
5. <u> </u>	<u> </u>	<u> </u>	15. <u>Triticum aestivum</u>	<u>FACU-</u>	<u>H</u>
6. <u> </u>	<u> </u>	<u> </u>	16. <u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	17. <u>NOTE: There is soybean stubble from</u>		
8. <u> </u>	<u> </u>	<u> </u>	18. <u>the 1989 crop.</u>		
9. <u> </u>	<u> </u>	<u> </u>	19. <u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	20. <u> </u>		

Percent of dominant species that are OBL, FACW, and/or FAC 0.
Is the hydrophytic vegetation criterion met? Yes No X
Rationale: No hydrophytes.

SOILS

Series/phase: Undetermined. Subgroup:²
Is the soil on the hydric soils list? Yes No Undetermined X
Is the soil a Histosol? Yes No X Histic epipedon present? Yes No X
Is the soil: Mottled? Yes X No Gleyed? Yes No X
Matrix Color: 10YR 4/2, 5/1 Mottle Colors: 10YR 5/6, 7.5YR 6/8
Other hydric soil indicators:
Is the hydric soil criterion met? Yes No X
Rationale: Although soil is mottled with low chroma, all vegetation is non-hydrophytic. Air photographs from 1982 and 1989 show farmland with no evidence of wetland hydrology in this area.

HYDROLOGY

Is the ground surface inundated? Yes No X Surface water depth:
Is the soil saturated? Yes No X
Depth to free-standing water in pit/soil probe hole: 19".
List other field evidence of surface inundation or soil saturation.
None.

Is the wetland hydrology criterion met? Yes No X
Rationale: Water table may be closer to surface at times, however, drainage ditch to the west does not permit surface water for very long, as evidenced by prevalence of non-hydrophytes and as seen on aerial

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes No X
Rationale for jurisdictional decision: This portion of the field is prior converted cropland. Soil has hydric characteristics, but does not support hydrophytes after having been fallow for a year or more.

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.

² Classification according to "Soil Taxonomy."

SOIL SURVEY

Client/Site - DE Solid Waste Authority		Determined by: MFG
Soil type - Undetermined**		Date - 05-02-91
Classification -		
Location - T2S3		
N. veg. (or crop) - Herbaceous		Climate
Drainage -		Ground water - 19".
Root distrib. -		

Hori- zon	Depth	Color	Texture	Consistence	Mottled	Mottle color
		Circle D(ry) or M(oist or W(et)				
	0-11"	D M 10YR 4/2 W	Silt Loam	Friable		
	11-15"	D M 10YR 5/1 W	Silt Loam	Friable	Few Fine Distinct	10YR 5/6
	15-40"	D M 10YR 6/1 W	Silty Clay	Firm	Common Medium Prominent	7.5YR 6/8
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:

** This area is shown as Sassafras sandy loam on the soil survey.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-07-91.
Project/Site: Delaware Solid Waste Authority State: DE County: Kent
Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T3S1
Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
Yes X No (If no, explain on back)
Has the vegetation, soils, and/or hydrology been significantly disturbed?
Yes No X (If yes, explain on back)

VEGETATION

Indicator			Indicator		
Dominant Plant Species	Status	Stratum	Dominant Plant Species	Status	Stratum
1. <u>Alopecurus sp.</u>	<u>FACW</u>	<u>H</u>	11. <u>Also observed, but NOT dominant:</u>		
2. <u>Ranunculus septentrionalis</u>			12. <u>Myosotis laxa</u>	<u>OBL</u>	<u>H</u>
3. <u> </u>	<u>OBL</u>	<u>H</u>	13. <u>Polygonium sp.</u>	<u>(FACW)</u>	<u>H</u>
4. <u> </u>			14. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>H</u>
5. <u> </u>			15. <u> </u>		
6. <u> </u>			16. <u> </u>		
7. <u> </u>			17. <u> </u>		
8. <u> </u>			18. <u> </u>		
9. <u> </u>			19. <u> </u>		
10. <u> </u>			20. <u> </u>		

Percent of dominant species that are OBL, FACW, and/or FAC 100.
Is the hydrophytic vegetation criterion met? Yes X No
Rationale:

SOILS

Series/phase: Fallsington loam Subgroup:² Typic Ochraqualts
Is the soil on the hydric soils list? Yes X No Undetermined
Is the soil a Histosol? Yes No X Histic epipedon present? Yes No X
Is the soil: Mottled? Yes X No Gleyed? Yes No X
Matrix Color: 10YR 4/1, 6/1 Mottle Colors: 7.5YR 4/6, 5/6
Other hydric soil indicators:
Is the hydric soil criterion met? Yes X No
Rationale: Saturation with low chroma and mottles near surface.

HYDROLOGY

Is the ground surface inundated? Yes No X Surface water depth:
Is the soil saturated? Yes X No
Depth to free-standing water in pit/soil probe hole: 16"
List other field evidence of surface inundation or soil saturation.
1982-1987 Aerial photographs; area is wet, low spot.
Is the wetland hydrology criterion met? Yes X No
Rationale: Ponded water, saturated soil.

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes X No
Rationale for jurisdictional decision: All criteria are met. This area is jurisdictional farmed wetland.

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.

² Classification according to "Soil Taxonomy."

SOIL SURVEY

Client/Site - CAFE/DE Solid Waste Authority	Determined by: MF Green
Soil type - Fallsington loam	Date - 05-07-91.
Classification -	
Location - T3S1	
N. veg. (or crop) - Herbaceous	Climate
Drainage -	Ground water - 16" (surface water
Root distrib. -	observed on prior site visit and
	in aerial photos from 1982 & 1989).

Hori- zon	Depth	Color	Texture	Consistence	Mottled	Mottle color
		Circle D(r7) or M(oist or W(et)				
	0-10"	D M 10YR 4/1 W	Sandy Loam	Friable		
	10-25"	D M 10YR 6/1 W	Loam	Friable	Common Medium Prominent	7.5YR 4/6 & 7.5YR 5/6
	25-35"	D M 10YR 5/1 W	Loam	Friable	Common Medium Prominent	7.5YR 4/6 & 7.5YR 5/6
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				
		D M W				

Remarks:

This is farmed wetland.

DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹

Field Investigator(s): MF Green Date: 05-07-91.
 Project/Site: Delaware Solid Waste Authority State: DE County: Kent
 Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: T3S2
 Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
 Yes ☒ No ☐ (If no, explain on back)
 Has the vegetation, soils, and/or hydrology been significantly disturbed?
 Yes ☐ No ☒ (If yes, explain on back)

VEGETATION					
Dominant Plant Species	Indicator Status	Stratum	Dominant Plant Species	Indicator Status	Stratum
1. <u>Viloa kitaibeliana</u>	<u>NL</u>	<u>H</u>	11. <u>Also present, but NOT dominant:</u>		
2. <u>Anthoxanthum odoratum</u>	<u>FACU</u>	<u>H</u>	12. <u>Myosotis laxa</u>	<u>OBL</u>	<u>H</u>
3. <u>Triticum aestivum</u>	<u>NL</u>	<u>H</u>	13. <u>Cerastium vulgatum</u>	<u>FACU</u>	<u>H</u>
4. _____	_____	_____	14. _____	_____	_____
5. _____	_____	_____	15. _____	_____	_____
6. _____	_____	_____	16. _____	_____	_____
7. _____	_____	_____	17. _____	_____	_____
8. _____	_____	_____	18. _____	_____	_____
9. _____	_____	_____	19. _____	_____	_____
10. _____	_____	_____	20. _____	_____	_____

Percent of dominant species that are OBL, FACW, and/or FAC 0.
 Is the hydrophytic vegetation criterion met? Yes ☐ No ☒
 Rationale: _____

SOILS

Series/phase: Fallsington loam Subgroup:² Typic Ochraqualts
 Is the soil on the hydric soils list? Yes ☒ No ☐ Undetermined _____
 Is the soil a Histosol? Yes ☐ No ☒ Histic epipedon present? Yes ☐ No ☒
 Is the soil: Mottled? Yes ☒ No ☐ Gleyed? Yes ☐ No ☒
 Matrix Color: 10YR 4/1, 6/2 Mottle Colors: 10YR 5/8
 Other hydric soil indicators: _____
 Is the hydric soil criterion met? Yes ☐ No ☒
 Rationale: Drained by ditch to the south. This area is farmland and appears dry in aerial photos of 1982 & 1989.

HYDROLOGY

Is the ground surface inundated? Yes ☐ No ☒ Surface water depth: _____
 Is the soil saturated? Yes ☐ No ☒
 Depth to free-standing water in pit/soil probe hole: 19 1/2" (after 24 hours - 05-08-91).
 List other field evidence of surface inundation or soil saturation: _____

Is the wetland hydrology criterion met? Yes ☐ No ☒
 Rationale: Prevalent vegetation is non-hydrophytic. There is a distinct change in vegetation between her and wetlands at T3S1. Soil is much sandier than at T3S1 and is readily drained by nearby ditch.

JURISDICTIONAL DETERMINATION AND RATIONALE

Is the plant community a wetland? Yes ☐ No ☒
 Rationale for jurisdictional decision: Area is prior converted cropland (PC).

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.
² Classification according to "Soil Taxonomy."

SOIL SURVEY

Client/Site - CAFE/DE Solid Waste Authority	Determined by: MF Green
Soil type - Fallsington Loam	Date - 05-07-91.
Classification -	
Location - T3S2	
N. veg. (or crop) - Herbaceous	Climate
Drainage -	Ground water -25".
Root distrib. -	

Hori- zon	Depth	Color		Texture	Consistence	Mottled	Mottle color
		Circle D(r7) or M(oist or W(et)					
	0-10"	D M W	10YR 4/1	Sandy Loam	Friable		
	10-16"	D M W	10YR 6/2	Very Sandy Loam	Friable	Common Medium Distinct	10YR 5/8
	16-30"	D M W	10YR 6/1	Loamy Sand	Friable	Common Coarse Distinct	10YR 5/8
		D M W					
		D M W					
		D M W					
		D M W					
		D M W					
		D M W					
		D M W					
		D M W					

Remarks:

**DATA FORM
ROUTINE ONSITE DETERMINATION METHOD¹**

Field Investigator(s): MF Green Date: 05-03-91.
 Project/Site: Delaware Solid Waste Authority State: DE County: Kent
 Applicant/Owner: CABE Associates, Inc. Plant Community #/Name: Wooded area NE corner
 Note: If a more detailed site description is necessary, use the back of data form or a field notebook.

Do normal environmental conditions exist at the plant community?
 Yes X No (If no, explain on back)
 Has the vegetation, soils, and/or hydrology been significantly disturbed?
 Yes No X (If yes, explain on back)

VEGETATION					
Dominant Plant Species	Indicator Status	Stratum	Dominant Plant Species	Indicator Status	Stratum
1. <u>Lonicera japonica</u>	<u>FAC-</u>	<u>WV</u>	11. <u>Other species present, but NOT dominant:</u>		
2. <u>Prunus serotina</u>	<u>FACU</u>	<u>T</u>	12. <u>Sassafras albidum</u>	<u>FACU</u>	<u>T</u>
3. <u> </u>	<u> </u>	<u> </u>	13. <u>Toxicodendron radicans</u>	<u>FAC</u>	<u>WV</u>
4. <u> </u>	<u> </u>	<u> </u>	14. <u>Phytolacca americana</u>	<u>FACU+</u>	<u>H</u>
5. <u> </u>	<u> </u>	<u> </u>	15. <u>Acer rubrum</u>	<u>FAC</u>	<u>T</u>
6. <u> </u>	<u> </u>	<u> </u>	16. <u>Rhus copallinum</u>	<u>NI</u>	<u>SH</u>
7. <u> </u>	<u> </u>	<u> </u>	17. <u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	18. <u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	19. <u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	20. <u> </u>	<u> </u>	<u> </u>

Percent of dominant species that are OBL, FACW, and/or FAC 50.
 Is the hydrophytic vegetation criterion met? Yes No
 Rationale:

SOILS

Series/phase: Sassafras sandy loam Subgroup:² Typic Hapludalts
 Is the soil on the hydric soils list? Yes No X Undetermined
 Is the soil a Histosol? Yes No X Histic epipedon present? Yes No X
 Is the soil: Mottled? Yes No X Gleyed? Yes No X
 Matrix Color: 10YR 5/6, 5/8 Mottle Colors:
 Other hydric soil indicators: None
 Is the hydric soil criterion met? Yes No X
 Rationale: High chroma, no mottling to 35" depth.

HYDROLOGY

Is the ground surface inundated? Yes No X Surface water depth:
 Is the soil saturated? Yes No X
 Depth to free-standing water in pit/soil probe hole: Greater than 30".
 List other field evidence of surface inundation or soil saturation.
None.
 Is the wetland hydrology criterion met? Yes No X
 Rationale: No field indicators of wetland hydrology.

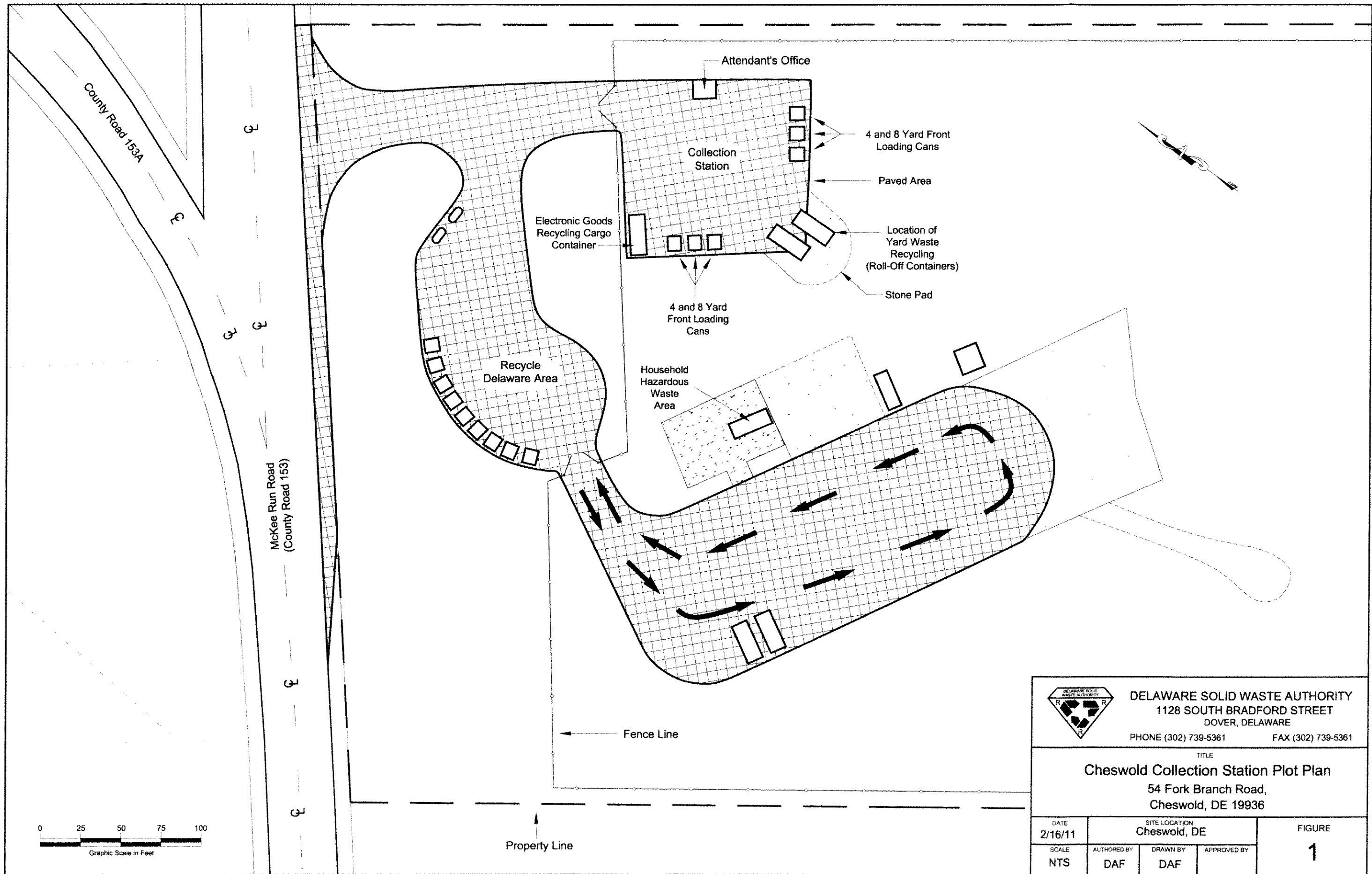
JURISDICTIONAL DETERMINATION AND RATIONALE


Is the plant community a wetland? Yes No X
 Rationale for jurisdictional decision: None of the criteria are met.

¹ This data form can be used for the Hydric Soil Assessment Procedure and the Plant Community Assessment Procedure.
² Classification according to "Soil Taxonomy."

**PLOT PLAN
(DSWA 2011)**

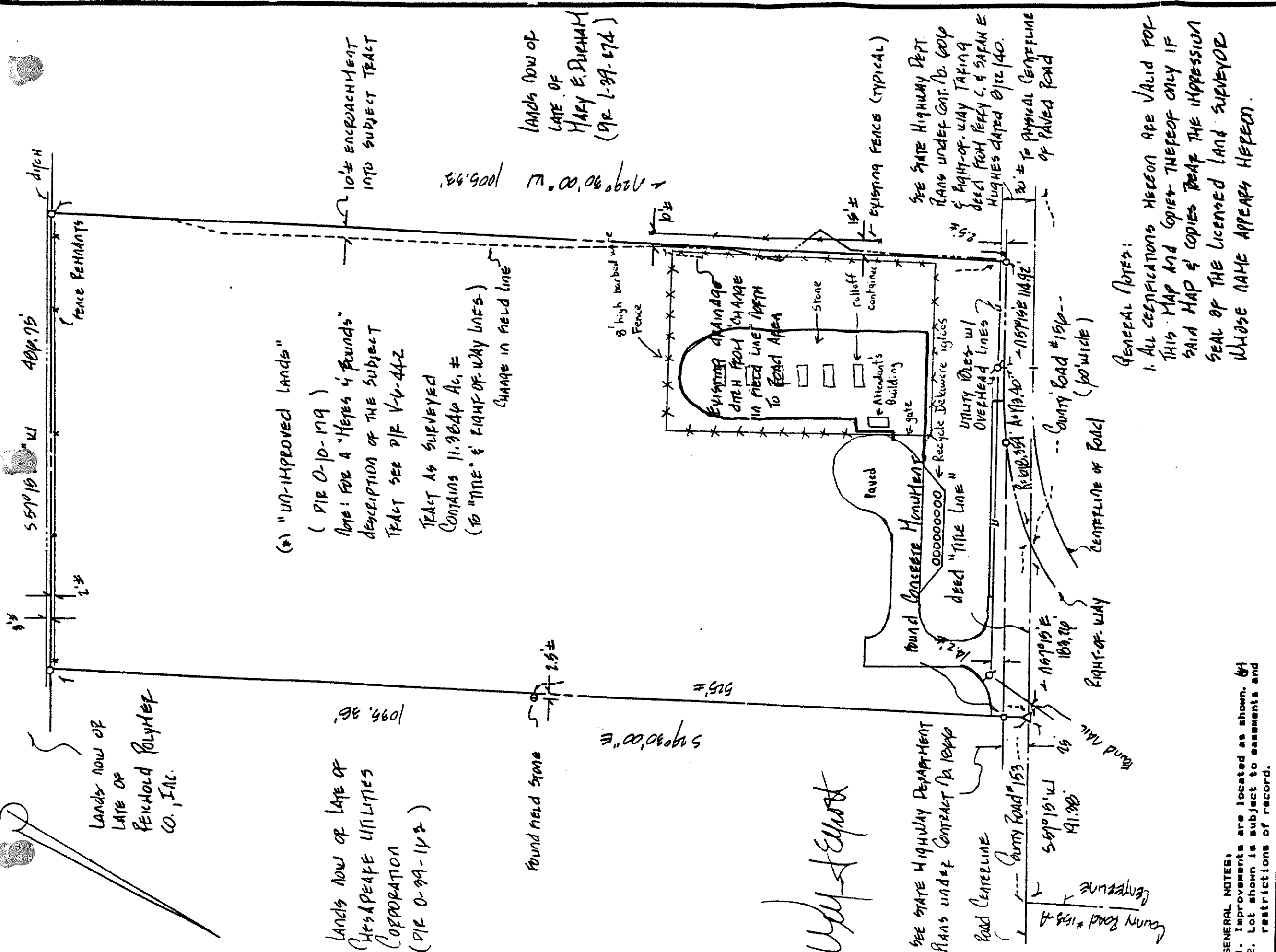
**Relevant Sections
4.5.1.4
4.5.1.7.2**



		DELAWARE SOLID WASTE AUTHORITY 1128 SOUTH BRADFORD STREET DOVER, DELAWARE PHONE (302) 739-5361 FAX (302) 739-5361	
TITLE Cheswold Collection Station Plot Plan 54 Fork Branch Road, Cheswold, DE 19936			
DATE 2/16/11	SITE LOCATION Cheswold, DE		FIGURE 1
SCALE NTS	AUTHORED BY DAF	DRAWN BY DAF	

**PROPERTY LINE SURVEY
(Elliot Surveying 4/12/91)**

**Relevant Section
4.5.1.7.1**



GENERAL NOTES:
1. Improvements are located as shown. (b)
2. Lot shown is subject to easements and restrictions of record.

General Notes:
1. All certifications hereon are valid for this map and copies thereof only if said map & copies bear the impression seal of the licensed land surveyor whose name appears hereon.

Plan of lands surveyed for and about to be conveyed to DeWape Solid Waste Authority situated on County Roads #153 & 154 1st Dover Hundred Kent County - State of Delaware

ELLIOTT SURVEYING
professional land surveying
Dover, De.

William a. Elliott, himself

SCALE: 1"=100'	SCRIBE: William A. Elliott
DATE: 8-10-91	VERIFY: WAE
CN: 03.10-91	DRAWING NO: 1 of 1

**SITE PLAN WITH TOPOGRAPHY
INCLUDING
100-YEAR FLOOD BOUNDARY
(CABE Associates, Inc., 1991)**

Relevant Section

4.5.1.4

4.5.1.7

4.5.1.11